GN-BR402W
Wireless Broadband Router
User's Guide

http://www.gigabyte.com.tw

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1. Product Introduction

1-1 About this Product

Thank you for using Gigabyte GN-BR402W Wireless Broadband Router. This product comes with high-performance transmission rate and compatible wireless connectivity for either your home or business and will allow you to access the data whenever you want. You will be able to enjoy the freedom that wireless networking delivers. Additionally, GN-BR402W enables you to easily setup all procedures in no time before using this product

1-2 Accessories

- Gigabyte GN-BR402W Broadband Router x 1
- Adapter (5V, 2A；100 ~ 240V) x 1
- User's Guide x 1 and CD (including User's Guide and Software) x 1
- RJ45 Network Cable x 2 (Normal x 1,Cross-Over x 1)

1-3 Specifications

GN-BR402W	Quantity	Description
LAN	4	10/100 Mbps, RJ-45 Insert Hole
USB	1	USB (B type) Insert Hole
WAN	1	10/100 Mbps, RJ-45 Insert Hole
COM	1	56K Modem Port
Printer	1	Printer Server Port
init	1	Init to factory default

1-4 LED Status

LED	Status	Indication
Power	Lit Green Light	Power on
WAN	Lit Green Light	ADSL/Cable Modem is connected to WAN port.
	Blinking Green Light	Transmit or receive data via the WAN port.
Wireless	Lit Green Light Status	The PCMCIA Card is plugged in, than RED light will automatically turn off.
	Blinking Green Light	Package transmit
	Green Light Off	The green light off means No PCMCIA Card installed.
	Blinking Red Light	The blinking red light indicates that the GN-BR402W is being initialized.
LAN1	Lit Green Light	10/100 Mbps Network Connection
	Blinking Green Light	10/100 Mbps Data Transmission Rate
LAN2	Lit Green Light	10/100 Mbps Network Connection
	Blinking Green Light	10/100 Mbps Data Transmission Rate
LAN3	Lit Green Light	10/100 Mbps Network Connection
	Blinking Green Light	10/100 Mbps Data Transmission Rate
LAN4	Lit Green Light	10/100 Mbps Network Connection
	Blinking Green Light	10/100 Mbps Data Transmission Rate

2. System Connection & Installation

- The following lists the requirements for the hardware installation

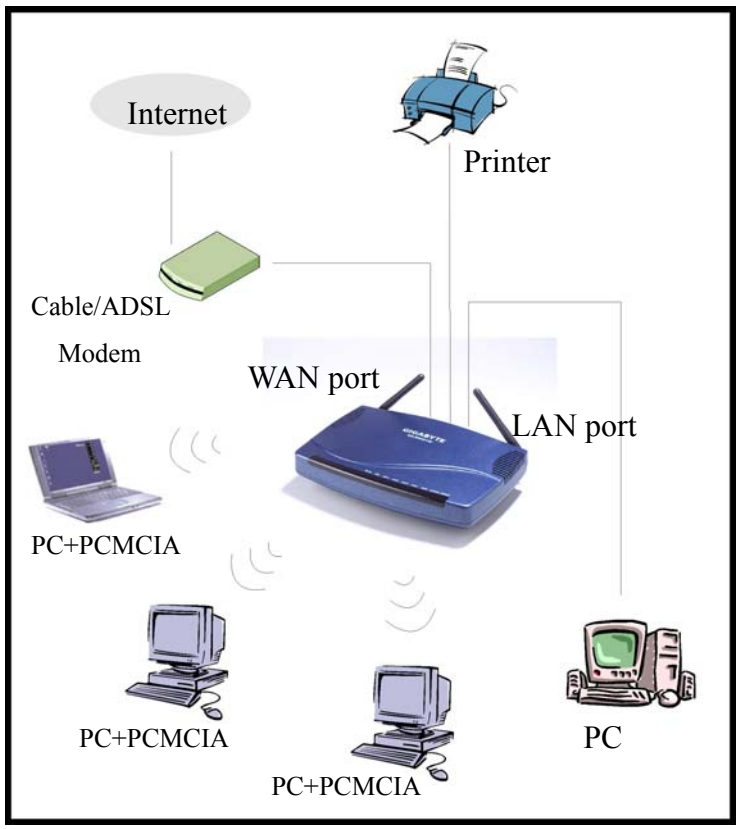
2-1 ADSL/Cable Modem Requirements

It needs to have ADSL/Cable Modem with RJ-45 connectors.

2-2 PC Hardware Requirement at the PC End

It needs a PC with Ethernet card connection, or PC with USB Port, or a PCMCIA wireless adapter.

The Diagram Showing the Ways of Installing the GN-BR402W



2-3 Connection for Ethernet User

Step 1. Please prepare an Ethernet cable (RJ- 45) first.
Step 2. Connect the Ethernet cable to the WAN port of the GN-BR402W.
Step 3. Connect an end of the network cable to the ADSL/Cable Modem of the Ethernet connection port.
Step 4. Connect any port of the area network LAN1, 2, 3, & 4 of the GN-BR402W to your PC.
Step 5. Connect the adapter to the power connection slot of the GN-BR402W.
Step 6. Insert the adapter to the power socket.

Please check if the light of the WAN port of the GN-BR402W is lit. If not, try to use the cross over (RJ- 45) Ethernet cable that comes with this product.

Step 7. The connection procedure is completed.

2-4 Connection for USB Port User (If you use USB connection, please refer to this section.)

Please repeat Steps 1~3 of Section 2-3.
Step 4. Connect the USB transmission cable to the USB port of the GN-BR402W and the USB port at the PC end.
Step 5. Please install the USB driver program by the CD that comes with the GN-BR402W. (Please refer to Appendix B for the installation of the USB driver program).

2-5 Connection for PCMCIA Wireless Adapter User

Please repeat Steps 1~3 of Section 2-3.
If you use wireless connection, please refer to the wireless card manual which provided by your wireless card manufature. After installing and setting the PCMCIA Wireless Adapter, refer to PC configuration section in Chapter 3, follow the instruction step by step to finish the TCP/IP Protocol setting (Setting PC) .

The SSID of the PCMCIA Wireless Adapter should be the same as the SSID of GN-BR402W. The default value is “gigabyte” (or “any”, if your Wireless LAN Card can support.), please do notice the form of the SSID value whether is capital or not.

3. Configuration

3-1 Preparation

Generally speaking, using the GN-BR402W for Internet connection needs the ADSL or Cable service. We assume that you have already obtained the ADSL/Cable service from the local telephone company or the ISP Company, and get the related connection data ready.
Such data include：

a. IP address provided by ISP
b. Subnet mask
c. Default gateway IP address
d. Domain Name System (DNS) Server IP address

- The ISP Company provides the above data.

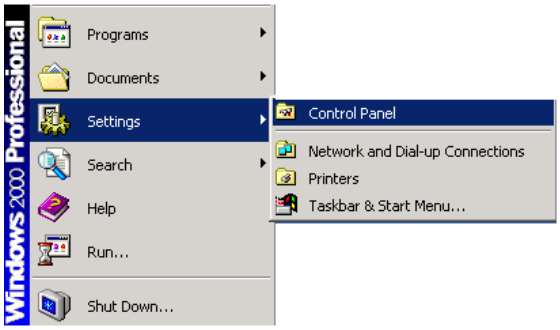
3-2 Setup at Your PC End

An easy-to-use web page setup interface is designed on the GN-BR402W, and the user can perform the setup by the browser. The Gigabyte GN-BR402W Broadband Router presets the IP address as "**192.168.1.254"**, and preset as a DHCP server Please follow the step below to perform the setup under the TCP/IP network environment. Please confirm the TCP/IP communication protocol is installed in your computer (Windows 95/98/Me/NT). If you have not installed the TCP/IP communication protocol, please install it now, and then select your operating system for the setup.

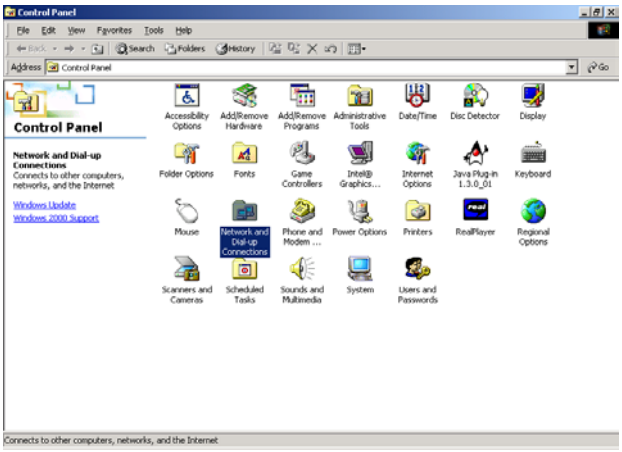
- For Windows 2000, please jump to 3-2-1.
- For Windows 95/98/Me, please jump to 3-2-2.
- For Windows XP, please jump to 3-2-3.

3-2-1 The Settings Under Windows2000

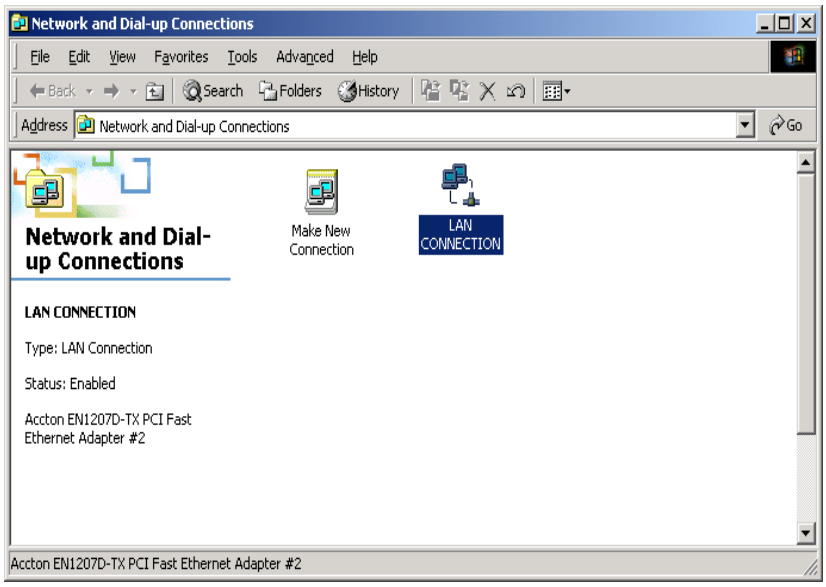
Step 1. Click “Start” in the desktop of the Windows to select “Settings”, and then click “Control Panel”.



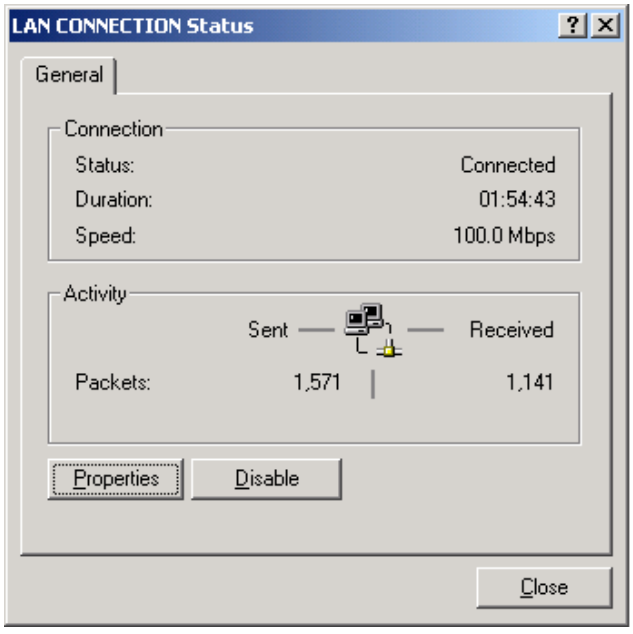
Step 2. Double click the “Network and Dial-up Connections”.



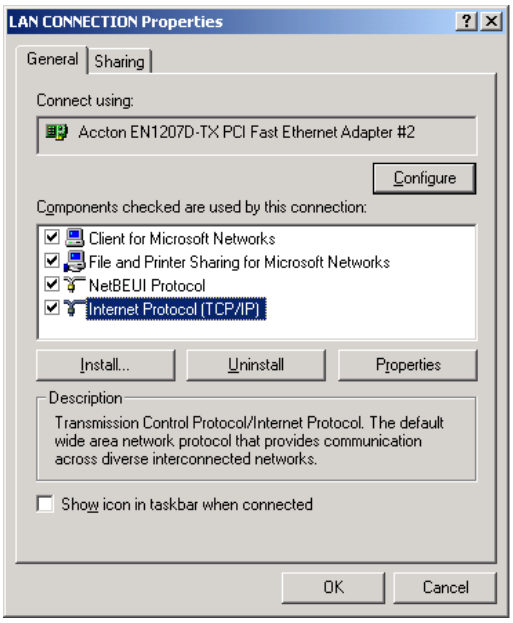
Step 3. Double click the “LAN CONNECTION”.



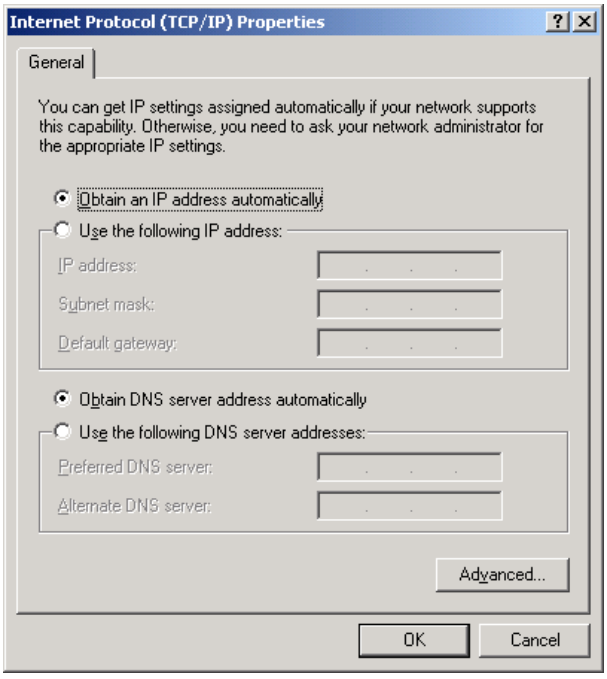
Step 4. Click “Properties” in the box under LAN CONNECTION Status.



Step 5. Double click “Internet Protocol (TCP/IP)”.

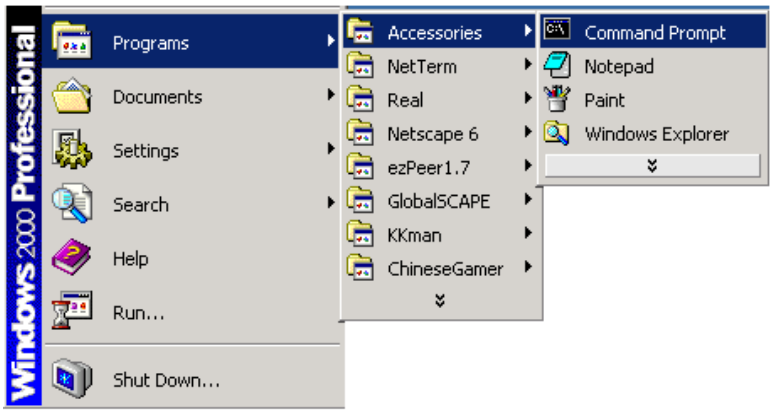


Step 6. Please select “Obtain an IP address automatically” and “Obtain DNS server address automatically”, and then press “OK”.

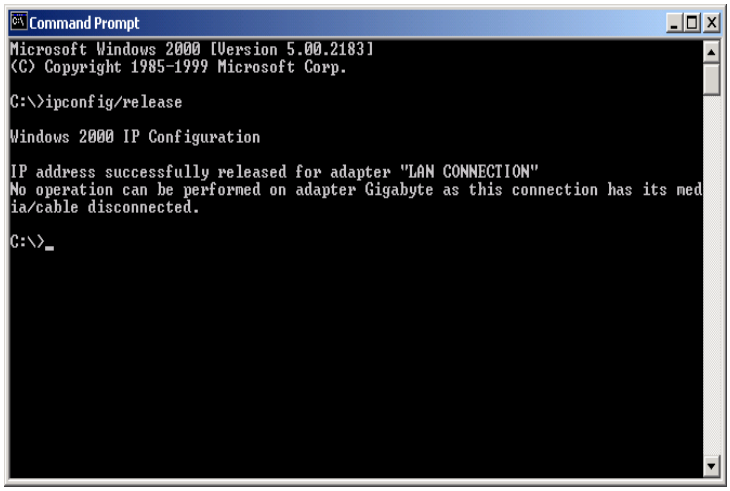

Internet Protocol (TCP/IP) Properties
General
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address:
Subnet mask:
Default gateway:
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server:
Alternate DNS server:
Advanced...
OK
Cancel

Now, the computer will obtain an IP address automatically from the GN-BR402W then you can go to Step11 directly. If you would like to obtain an IP address manually, please refer to Step7~Step10.

Step 7. Click “Start” at the desktop of the Windows, and then “Program”, “Accessories”, and “Command Prompt” in sequence.

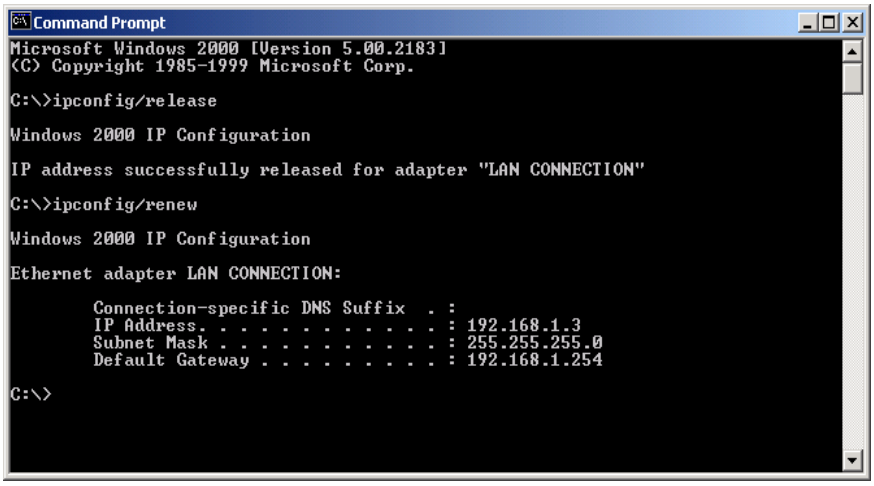


Step 8. Key in the command “ipconfig /release” in DOS mode, and then enter.

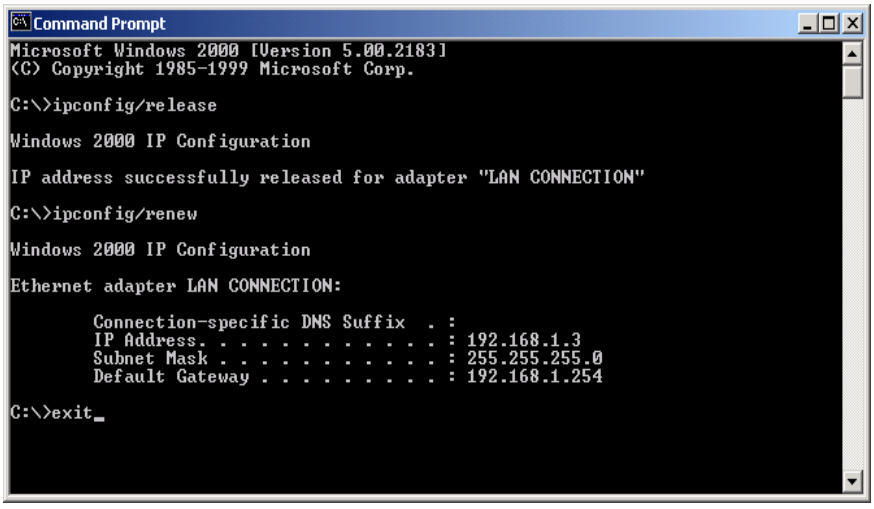

Command Prompt
Microsoft Windows 2000 [Version 5.00.2183]
(C) Copyright 1985-1999 Microsoft Corp.
C:\>ipconfig/release
Windows 2000 IP Configuration
IP address successfully released for adapter "LAN CONNECTION"
No operation can be performed on adapter Gigabyte as this connection has its media/cable disconnected.
C:\>

Step 9. Key in the command “ipconfig/renew”, and then enter.

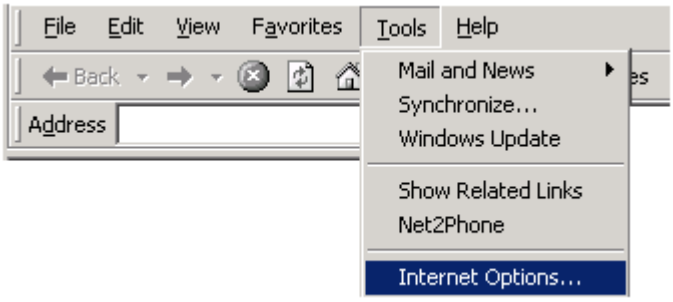
If the IP address of the GN-BR402W is 192.168.1.254, the IP address of your computer must be 192.168.1.X (where “X” is a number between 1 and 253. Each computer on your network must have a different IP address within that range where “X” represents a number between 1 and 253.) The default gateway must be 192.168.1.254.


Command Prompt
Microsoft Windows 2000 [Version 5.00.2183]
(C) Copyright 1985-1999 Microsoft Corp.
C:\>ipconfig/release
Windows 2000 IP Configuration
IP address successfully released for adapter "LAN CONNECTION"
C:\>ipconfig/renew
Windows 2000 IP Configuration
Ethernet adapter LAN CONNECTION:
Connection-specific DNS Suffix . :
IP Address. . . . . : 192.168.1.3
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . : 192.168.1.254
C:\>

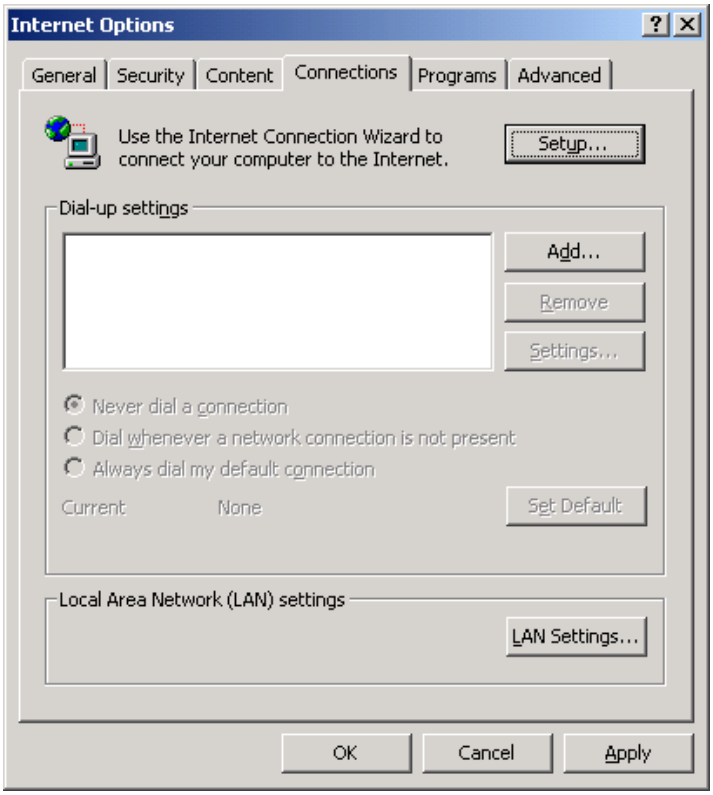
Step 10. Key in “exit”, and then enter.


Command Prompt
Microsoft Windows 2000 [Version 5.00.2183]
(C) Copyright 1985-1999 Microsoft Corp.
C:\>ipconfig/release
Windows 2000 IP Configuration
IP address successfully released for adapter "LAN CONNECTION"
C:\>ipconfig/renew
Windows 2000 IP Configuration
Ethernet adapter LAN CONNECTION:
Connection-specific DNS Suffix . :
IP Address. . . . . : 192.168.1.3
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . : 192.168.1.254
C:\>exit

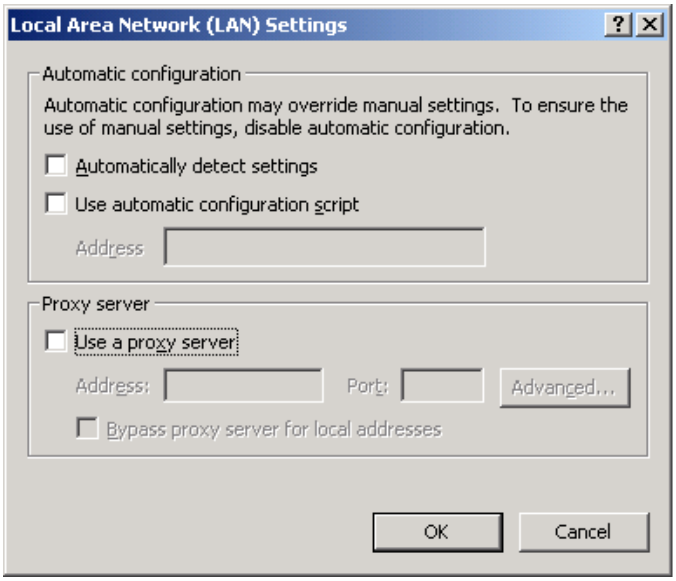
Step11. In your “IE Browser” select “Internet Options” under “Tools”.



Step 12. In this dialogue box, please click “Connections” in the “LAN Settings”.



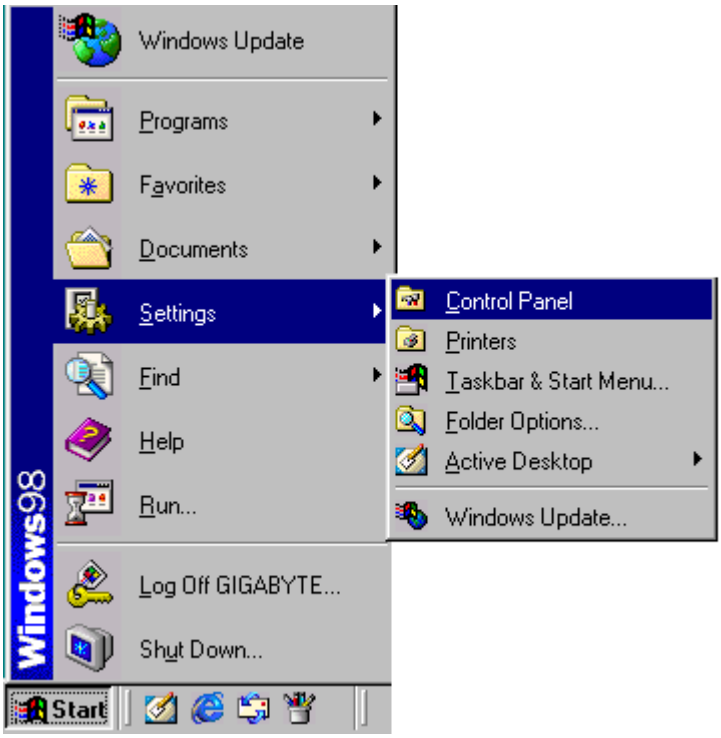
Step 13. Please **DO NOT** tick all of the selection boxes. Press "OK" after finishing with the setup, and refer to Section 3-3 for setup of broadband router.



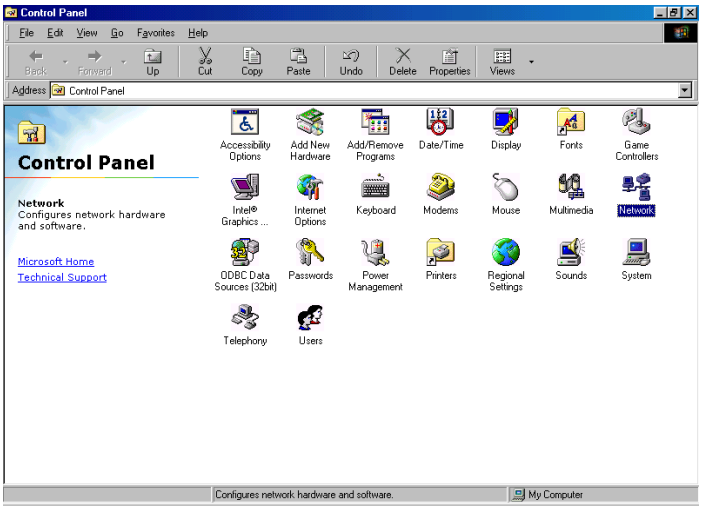
If your ISP Company has a designated Proxy setting, key in the setting after you complete the GN-BR402W configuration Please jump to Section 3-3 to setup broadband router.

3-2-2 Setup Under the Windows 95/98/Me

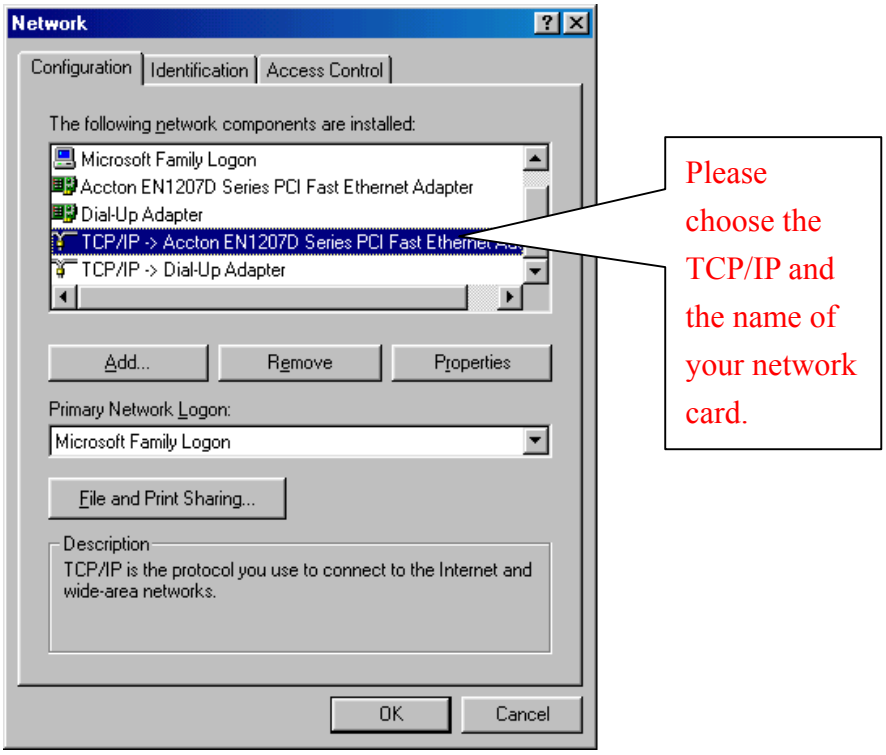
Step 1. Click “Start” at the desktop of the Windows, and select “Settings”, and then the “Control Panel”.



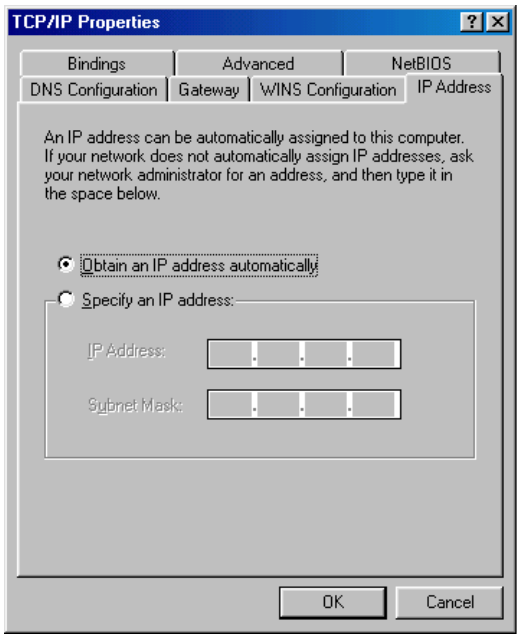
Step 2. Double click “Network”.



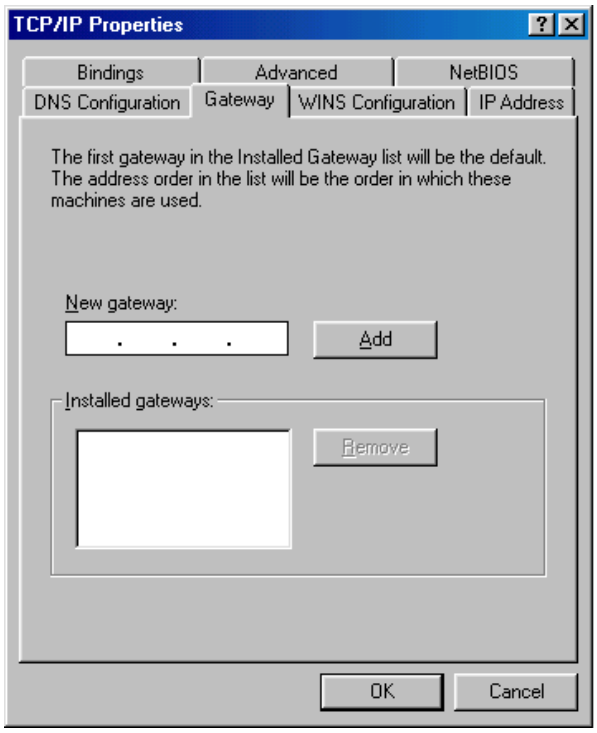
Step 3. Under Network, double click the “Configuration”, and choose your appropriate setting “TCP/IP -> and your network card” below.



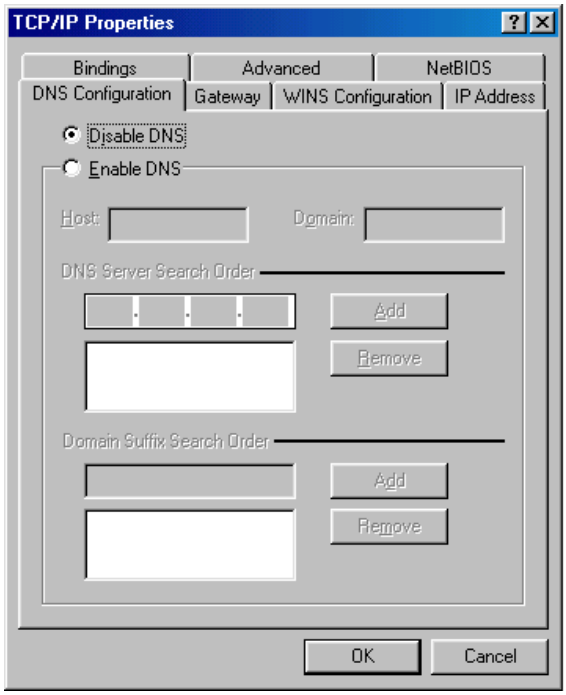
Step 4. Select IP Address. Please select “Obtain an IP address automatically” then click “Gateway” tab.


TCP/IP Properties
Bindings
Advanced
NetBIOS
DNS Configuration
Gateway
WINS Configuration
IP Address
An IP address can be automatically assigned to this computer. If your network does not automatically assign IP addresses, ask your network administrator for an address, and then type it in the space below.
Obtain an IP address automatically
Specify an IP address:
IP Address:
Subnet Mask:
OK
Cancel

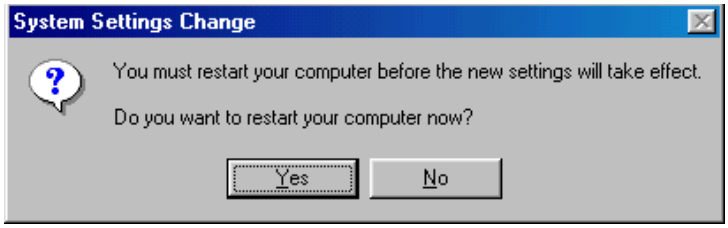
Step 5. In the window of “Gateway”, please clear all installed gateways and do not fill any of the blanks, and then click “DNS Configuration” tab.



Step 6. In the window of “DNS Configuration”, please select “Disable DNS” and then press OK”.

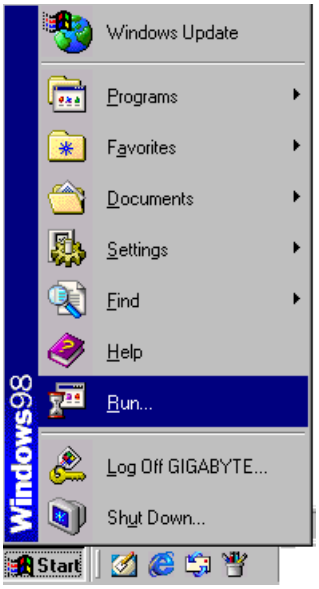


Step 7. Please press “Yes”, and reset the computer screen as follows:

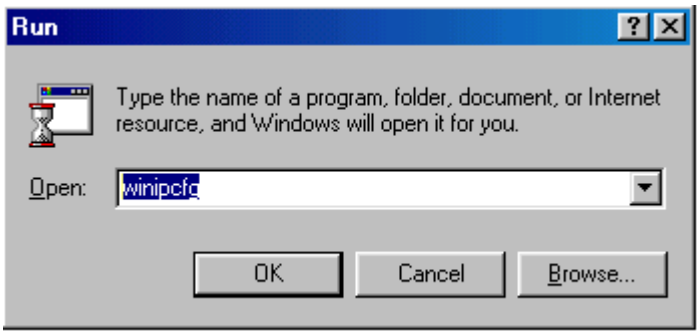

System Settings Change
You must restart your computer before the new settings will take effect.
Do you want to restart your computer now?
Yes
No

After booting the computer, the computer will obtain an IP address automatically from the GN-BR402W then you can go to Step11 directly. If you would like to obtain an IP address manually, please refer to Step8~Step10.

Step 8. After booting the computer, please click “Start” and choose “Run”.

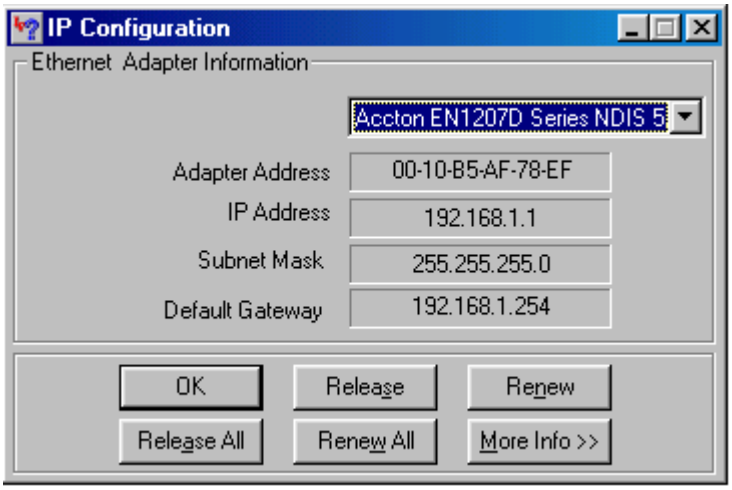


Step 9. Key in “winipcfg”, and press “OK”.

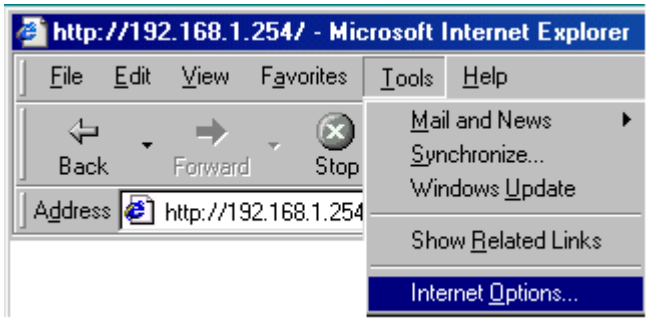


Step 10. In the pulled down menu, select your network card, press “Release All”, then press “Renew All”, and then press “OK”.

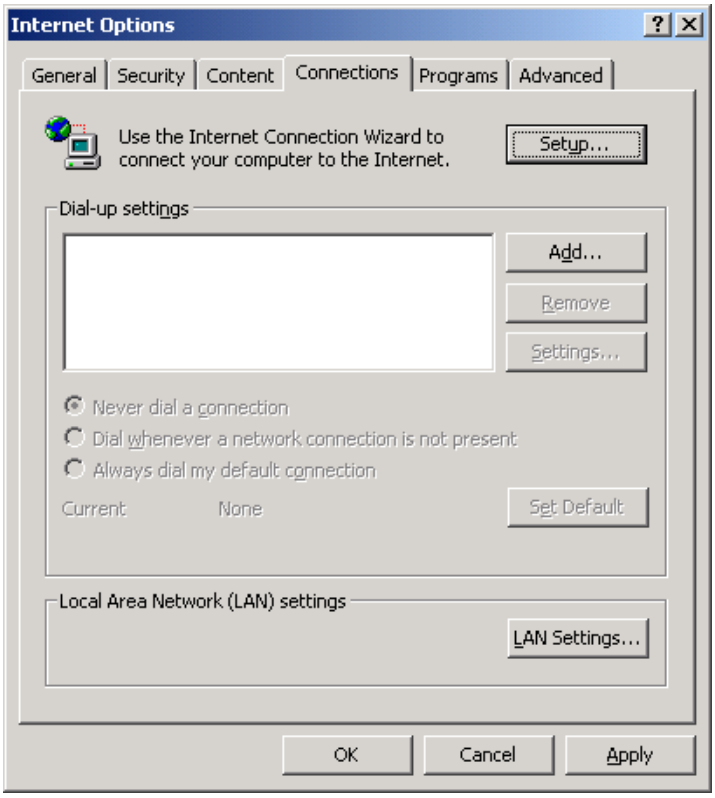
If the IP address of the GN-BR402W is 192.168.1.254, the IP address of your computer must be 192.168.1.X (where “X” is a number between 1 and 253. Each computer on your network must have a different IP address within that range where “X” represents a number between 1 and 253.) The default gateway must be 192.168.1.254.



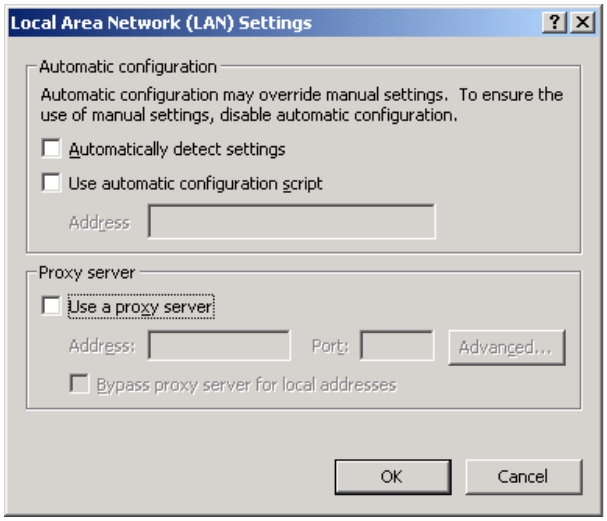
Step11. Please select “Internet Options” under “Tools” of your IE Browser.



Step 12. In this dialogue box, please select “Connections” in the “LAN Settings”.



Step 13. Please **DO NOT** tick all of the selection boxes. Press “OK” after finishing with the setup, and refer to Section 3-3 for setup of broadband router.

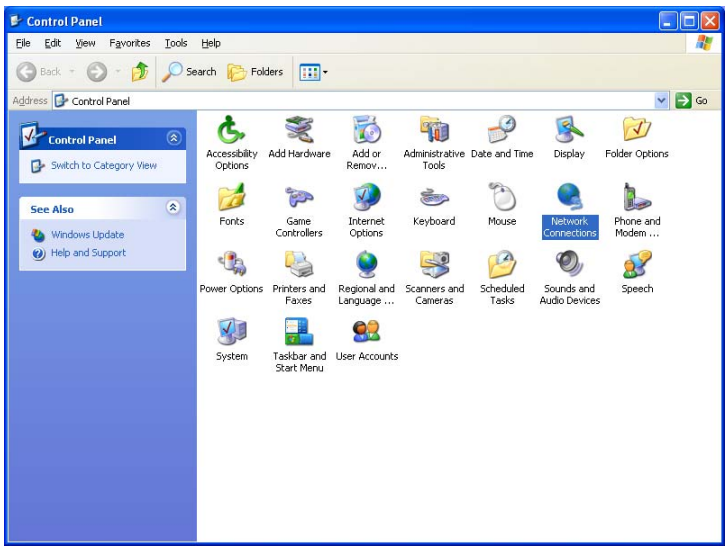


If your ISP Company has a designated Proxy setting, key in the setting after you complete the GN-BR402W configuration Please jump to Section 3-3 to setup broadband router.

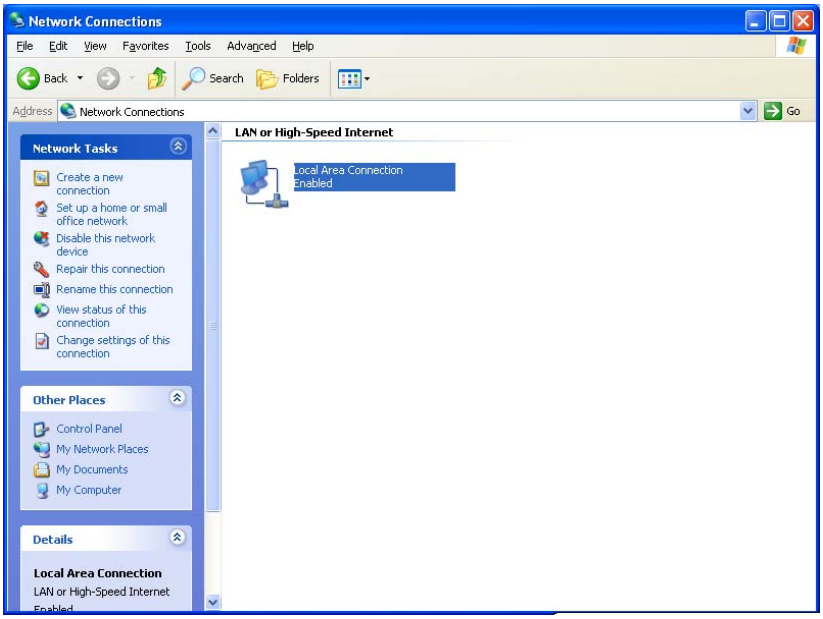
3-2-3 Setup Under Windows XP

Step 1. Click the “Start” at the desktop of the Windows, and select the “Control Panel”.

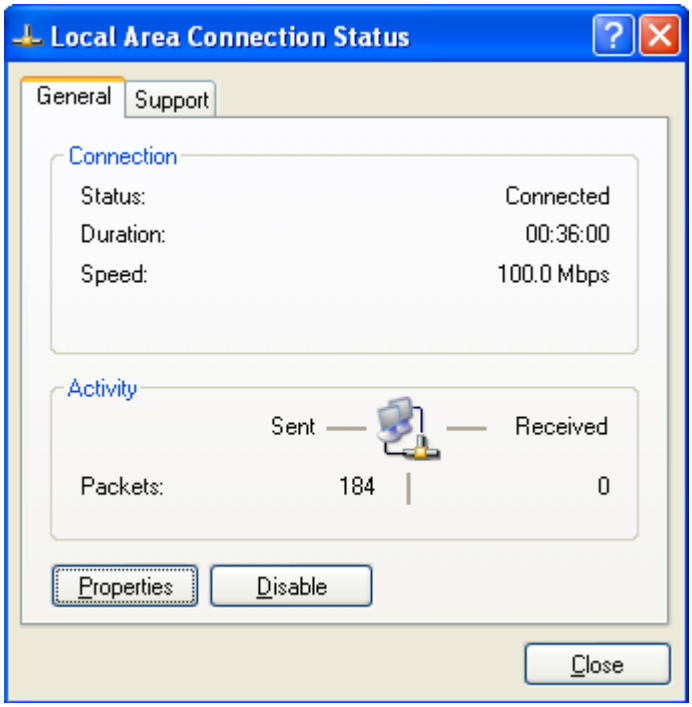
Step 2. Double click the “Network and Dial-up Connections”.



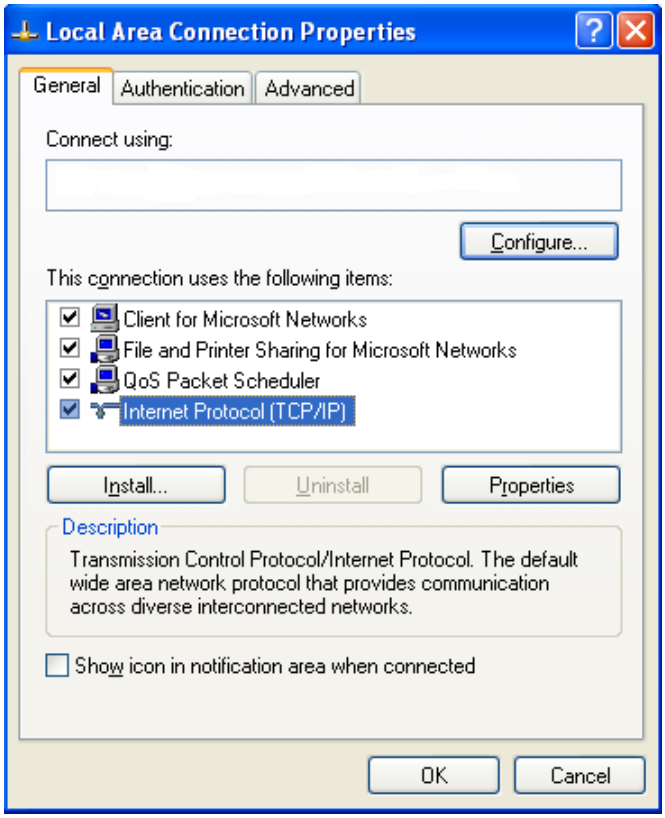
Step 3. Double click the “LAN CONNECTION”.



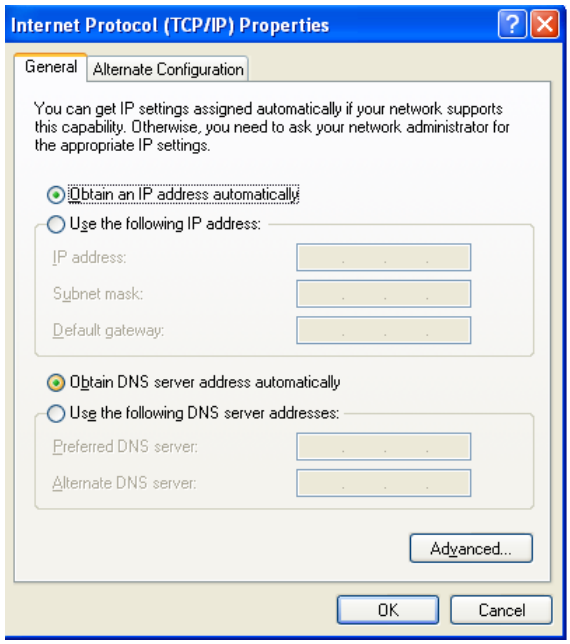
Step 4. Click the “Properties” in the box under LAN CONNECTION.



Step 5. Double click the “Internet Protocol(TCP/IP)”.

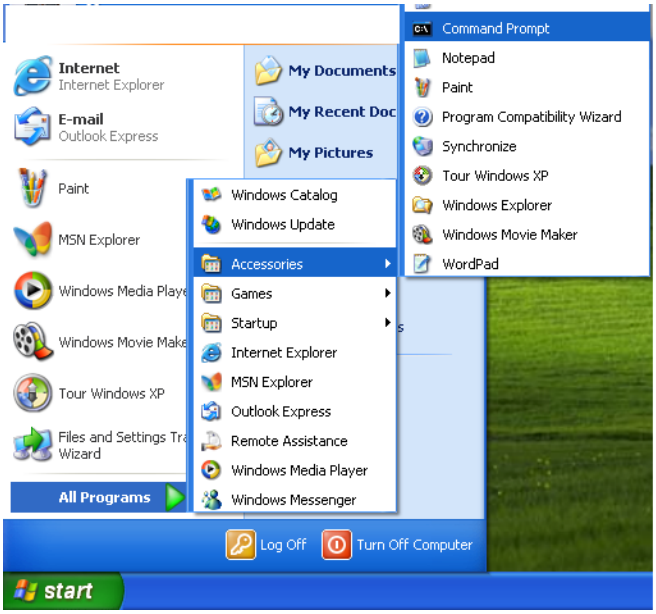


Step 6. Please select the “Obtain an IP address automatically” and “Obtain DNS server address automatically”, and then press “OK”.

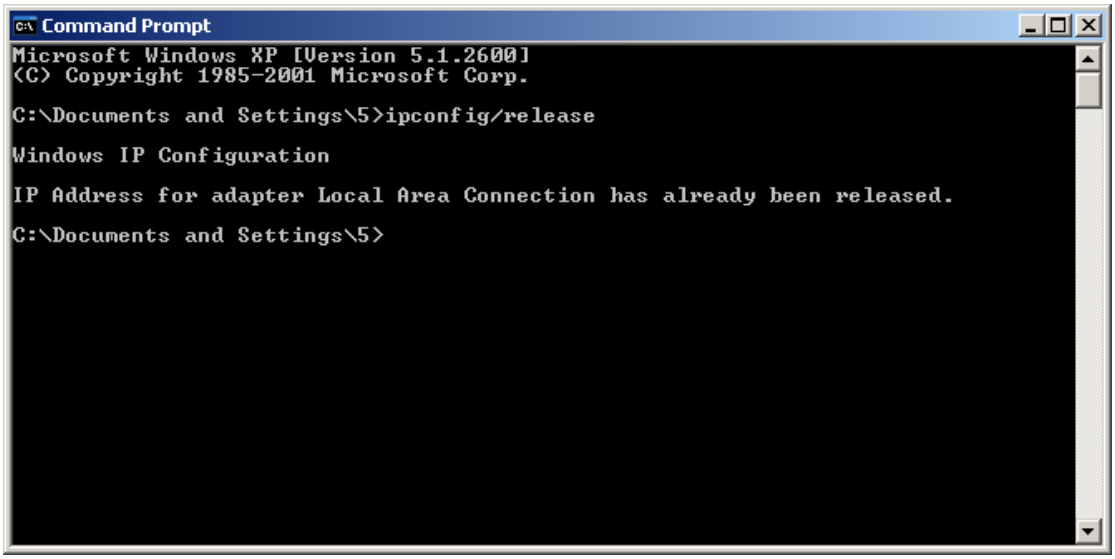

Internet Protocol (TCP/IP) Properties
General
Alternate Configuration
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address:
Subnet mask:
Default gateway:
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server:
Alternate DNS server:
Advanced...
OK
Cancel

Now, the computer will obtain an IP address automatically from the GN-BR402W then you can go to Step11 directly. If you would like to obtain an IP address manually, please refer to Step7~Step10.

Step 7. Click the “Start” at the desktop of the Windows, and then the “Accessories”, and then the “Command Prompt”.

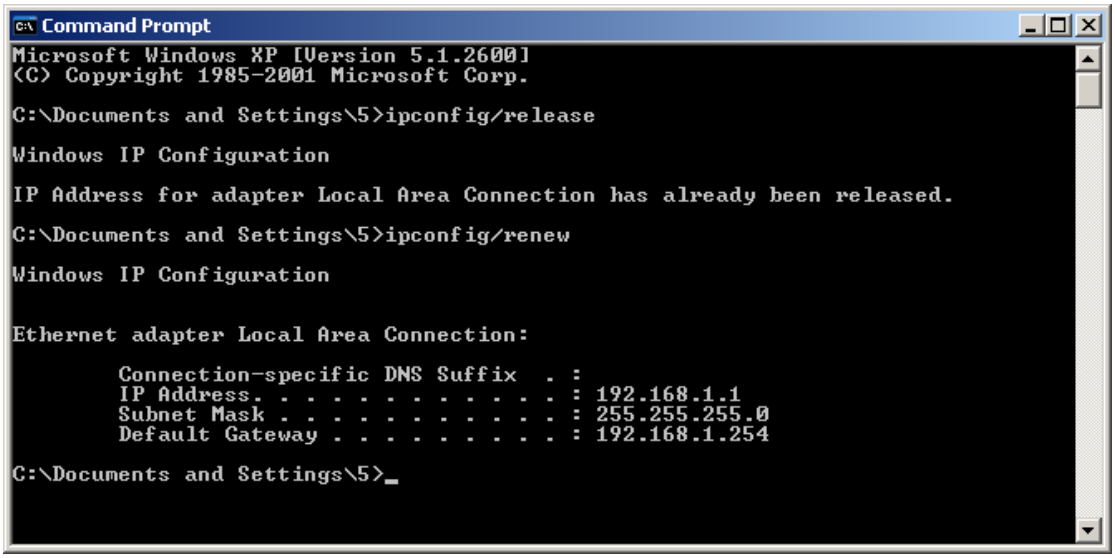


Step 8. Input the “ipconfig /release” in the box of Command Prompt, and then enter.

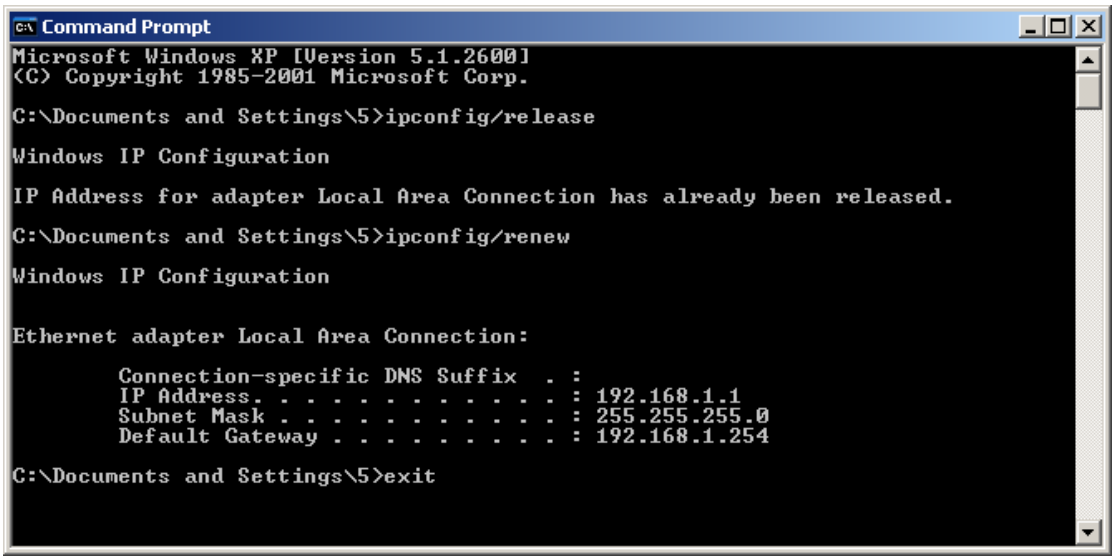

Command Prompt
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.
C:\Documents and Settings\5>ipconfig/release
Windows IP Configuration
IP Address for adapter Local Area Connection has already been released.
C:\Documents and Settings\5>

Step 9. Input “ipconfig/renew”, and then enter.

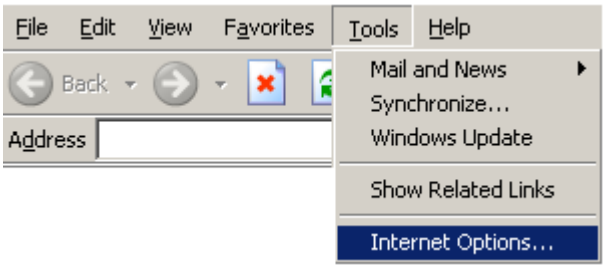
If the IP address of the GN-BR402W is 192.168.1.254, the IP address of your computer must be 192.168.1.X (where “X” is a number between 1 and 253. Each computer on your network must have a different IP address within that range where “X” represents a number between 1 and 253.) The default gateway must be 192.168.1.254.


Command Prompt
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.
C:\Documents and Settings\5>ipconfig/release
Windows IP Configuration
IP Address for adapter Local Area Connection has already been released.
C:\Documents and Settings\5>ipconfig/renew
Windows IP Configuration
Ethernet adapter Local Area Connection:
Connection-specific DNS Suffix . :
IP Address. . . . . : 192.168.1.1
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . : 192.168.1.254
C:\Documents and Settings\5>_

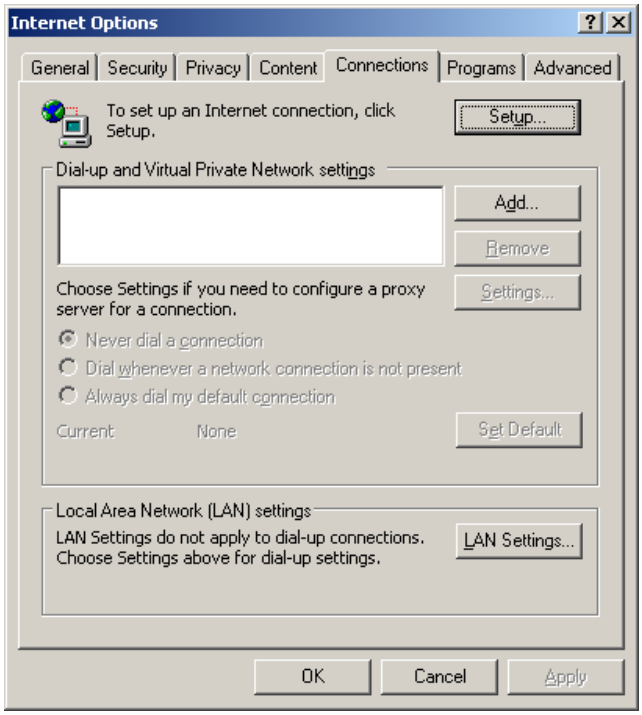
Step 10. Input “exit”, and then press enter.


Command Prompt
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.
C:\Documents and Settings\5>ipconfig/release
Windows IP Configuration
IP Address for adapter Local Area Connection has already been released.
C:\Documents and Settings\5>ipconfig/renew
Windows IP Configuration
Ethernet adapter Local Area Connection:
Connection-specific DNS Suffix . :
IP Address. . . . . : 192.168.1.1
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . : 192.168.1.254
C:\Documents and Settings\5>exit

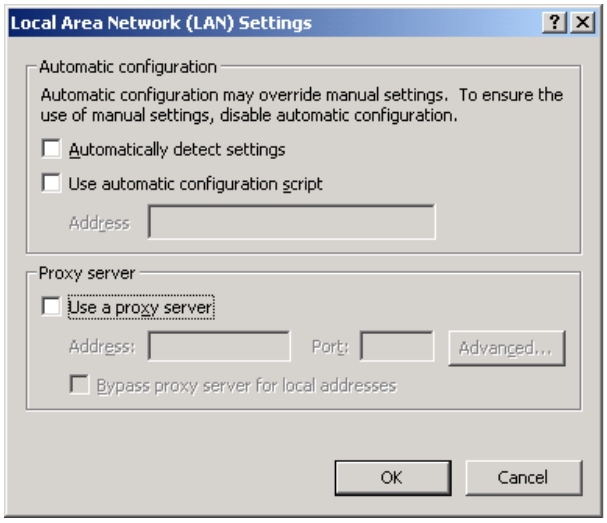
Step 11. Please select “Internet Options” under “Tools” of your IE Browser.



Step 12. In this dialogue box, please select “Connections” in the “LAN Settings”.



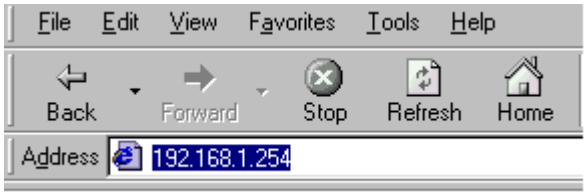
Step13. Please **DO NOT** tick all of the selection boxes. Press “OK” after finishing with the setup.



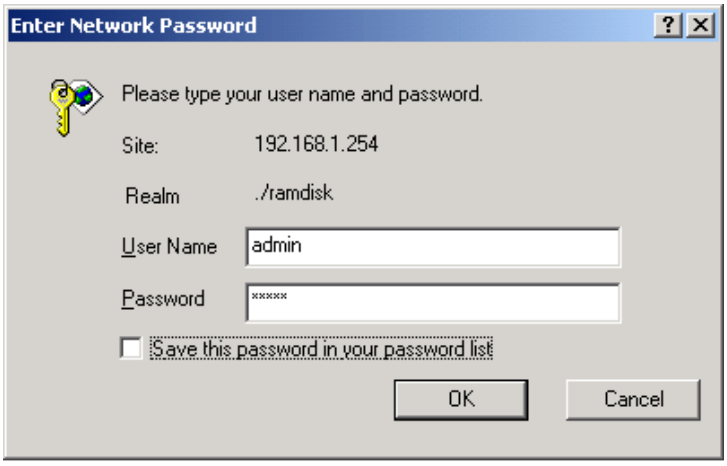
If your ISP Company has a designated Proxy setting, key in the setting after you complete the GN-BR402W configuration Please jump to Section 3-3 to setup broadband router.

3-3 Setup for Broadband Router

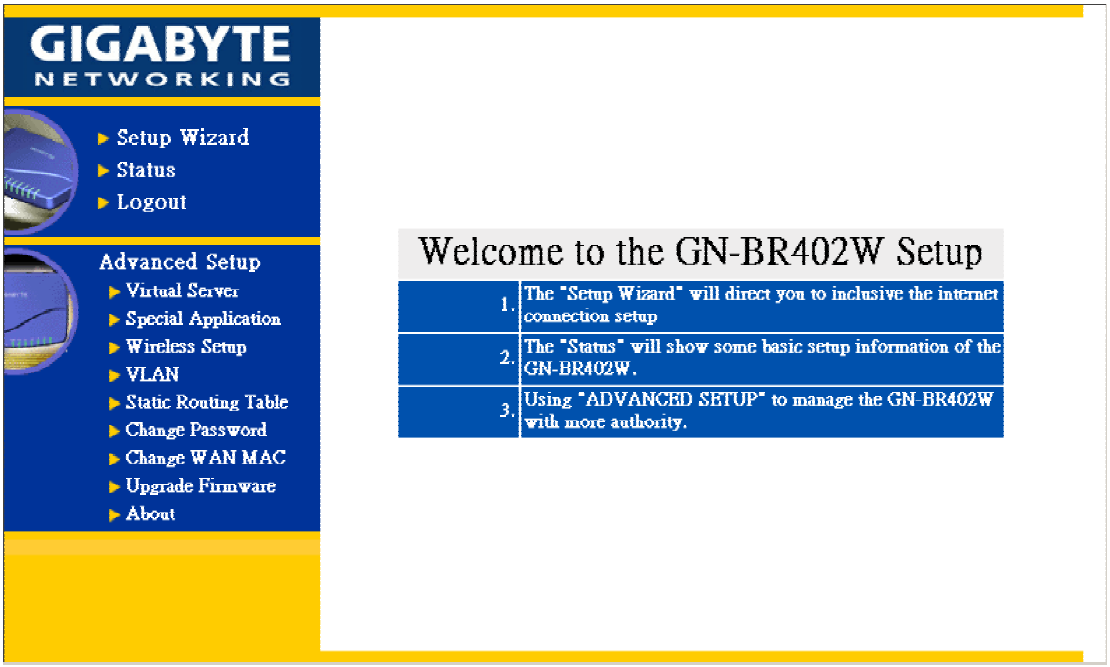
Step 1. Key in the preset IP address“192.168.1.254” in the address column in the browser, and then press enter.



Step 2. The dialogue box will appear as shown in the following diagram, and key in the default user name “admin” for the wideband network GN-BR402W and the default password “admin”, and then press “OK”:



Step 3. The homepage of the GN-BR402W will appear as shown below, and click the “Setup Wizard” on the screen, and such “Setup Wizard” will guide you to complete the necessary steps for the setup on screen as follows.



Step 4. "LAN Setup" is shown in the diagram. **Each setup item of the local area network is default setting, and is not necessary to make change to it** for normal operation. Please input the settings on your own if change is needed.

DHCP Setup:

- "**enable**" indicates that the DHCP function of the GN-BR402W is initialized, and you configure the computers on your network to "Obtain an IP address automatically", then when you turn your computer "On", it will automatically load the proper TCP/IP setting from GN-BR402W. (Configure the DHCP starting address and the DHCP allocation number on your own.)
- "**disable**" indicates that it will not automatically load proper TCP/IP setting from the GN-BR402W. You will have to configure all the TCP/IP setting for your network manually. (It is not necessary to configure the DHCP starting address and the DHCP allocation number.)

DHCP Starting Address:

When the DHCP setting is "enable", the GN-BR402W uses this address as the initial value to assign the IP to the PC connected to the LAN end.

For example:

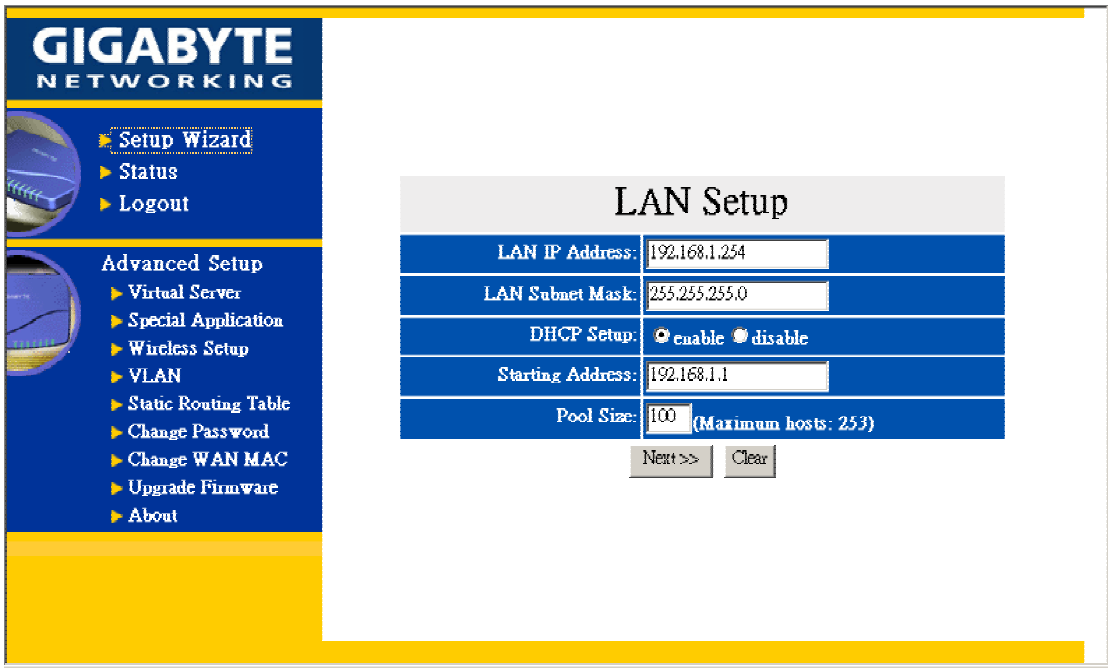
The DHCP starting address is 192.168.1.1

DHCP allocation number is 50.

The IP allocable range of the DHCP is from 192.168.1.1 to 192.168.1.50.

The LAN IP address "192.168.1.254" is the default IP address of the GN-BR402W.

Click "Next", and the following screen will appear:



Step 5. "WLAN Setup" is shown in the diagram. **Each setup item of the Wireless local area network is default setting, and is not necessary to make change to it** for normal operation. Please input the settings on your own if change is needed.

DHCP Setup:

- "**enable**" indicates that the DHCP function of the GN-BR402W is initialized, and you configure the computers on your network to "Obtain an IP address automatically", then when you turn your computer "On", it will automatically load the proper TCP/IP setting from GN-BR402W. (Configure the DHCP starting address and the DHCP allocation number on your own.)
- "**disable**" indicates that it will not automatically load proper TCP/IP setting from the GN-BR402W. You will have to configure all the TCP/IP setting for your network manually. (It is not necessary to configure the DHCP starting address and the DHCP allocation number.)

DHCP Starting Address:

When the DHCP setting is "enable", the GN-BR402W uses this address as the initial value to assign the IP to the PC connected to the LAN end.

For example:

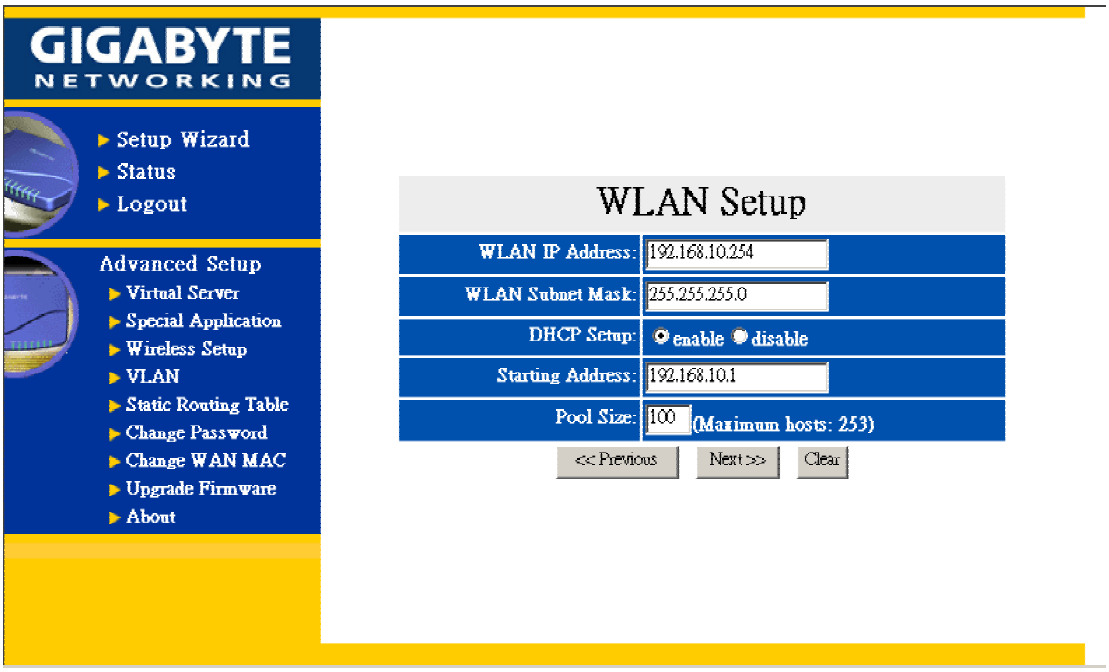
The DHCP starting address is 192.168.10.1

DHCP allocation number is 50.

The IP allocable range of the DHCP is from 192.168.10.1 to 192.168.10.50.

The WLAN IP address "192.168.10.254" is the default IP address of the GN-BR402W.

Click "Next", and the following screen will appear:



Step 6. Choose your desired wide area network mode

PPPoE: If you are using the hourly rate for the ADSL, please select this item.

Note –PPPoE Please jump to Step 7

Dynamic IP Address: If you use the wideband fixed connection of ADSL/Cable Modem, but do not have a static IP, please select this item.

Note –Dynamic IP Please jump to Step 11

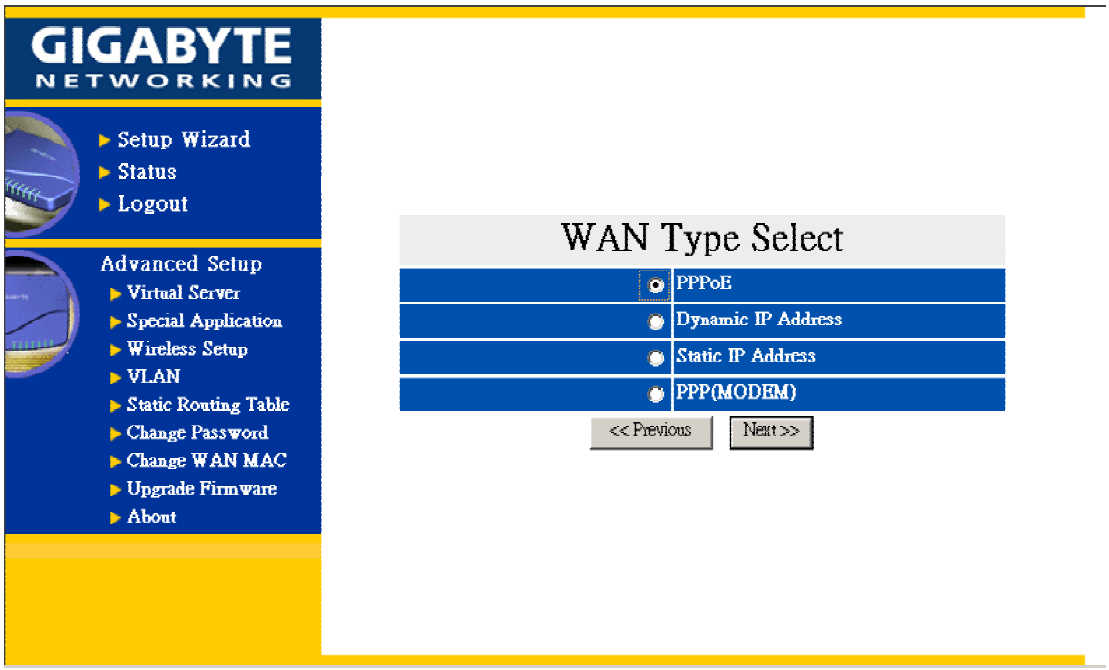
Static IP Address: If you use the wideband fixed connection of ADSL/Cable Modem, but have a static IP, please select this item.

Note – Static IP Please jump to Step 15

Modem: If you use the wideband fixed connection of PPP(Modem) , please select this item.

Note – PPP(Modem) Please jump to Step 19

After your desired wide area network mode is selected, please press "Next".



Step 7. If you select “PPPoE ” under the WAN TYPE SELECT, key in the User ID and password. The wideband company provides the above data, and press “Finish” to go to next step.

PPPoE User ID and Password:

The “User ID” and “Password” your ISP assigned to you.

Dial on Demand:

- “**Enable**” : When you are not using the Internet for a while then the WAN connection will be automaticly disconnected. If you want to use the Internet again then the WAN connection will be automaticly reconnected to WAN.
- “**Disable**” : When the WAN connection is automatically disconnected and you want to use the Internet again then you will have to manually reconnect to Internet.

Maximum Idle Time:

The “Idle Time” means after this time period if you do not use the Internet for a while, the time expired, and the WAN connection will be auto disconnected. The on-line charge will be stopped.

MTU(Maximum Transmission Unit):

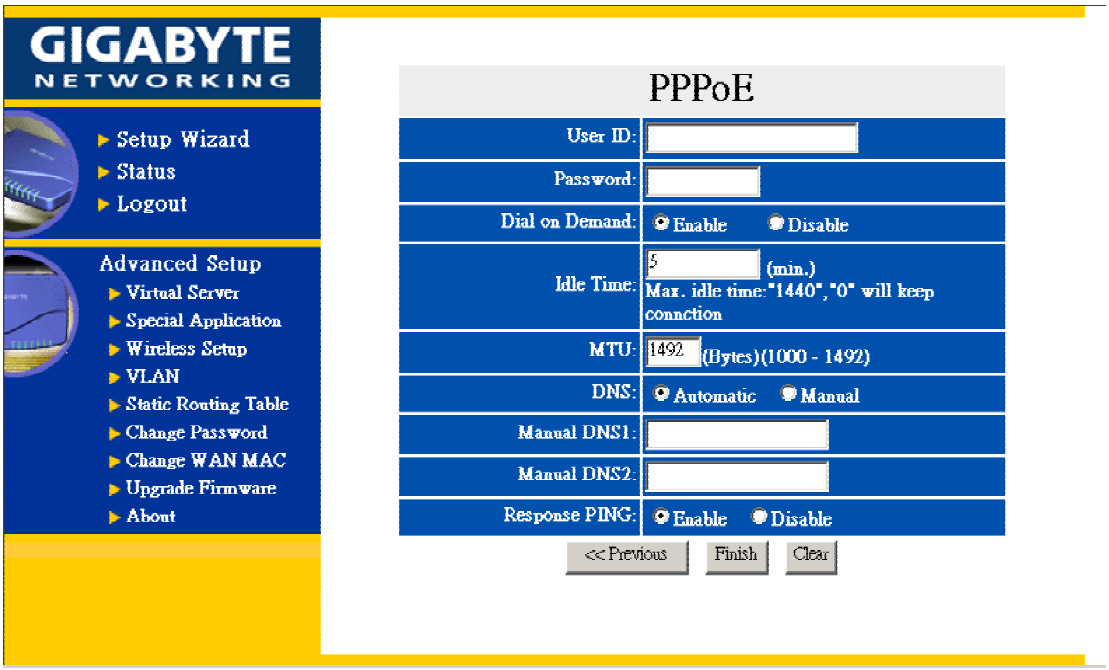
This defines the maximum size of the packets sent from your computer onto the network. Any messages larger than the MTU are divided into smaller packets before being sent. Leave this on the default value(1492) unless you have a particular reason to change it.

DNS:

- “**Automatic**” : Automatically assigned from your ISP.
- “**Manual**” : Please key in the Manual DNS1 and Manual DNS2 IP address.

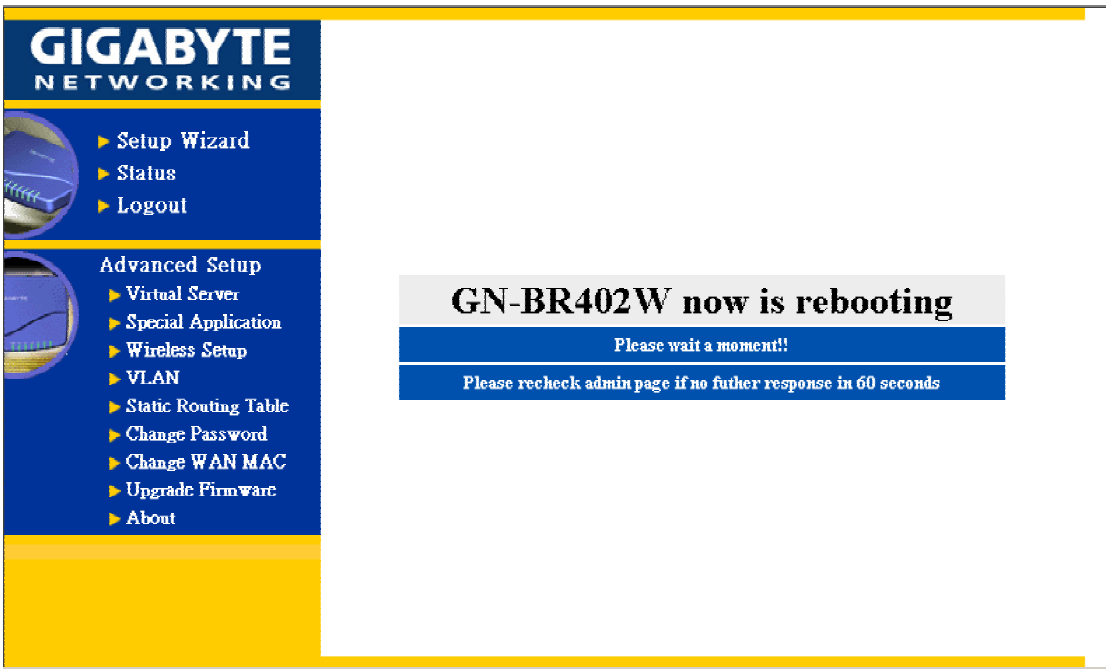
Response PING:

- “***Enable***” : GN-BR402W will reply the ping command from other computers which located on the WAN site.
- “***Disable***”: GN-BR402W will not reply the ping command from other computers which located on the WAN site.



Step 8. Press “Reboot” to go to next step.

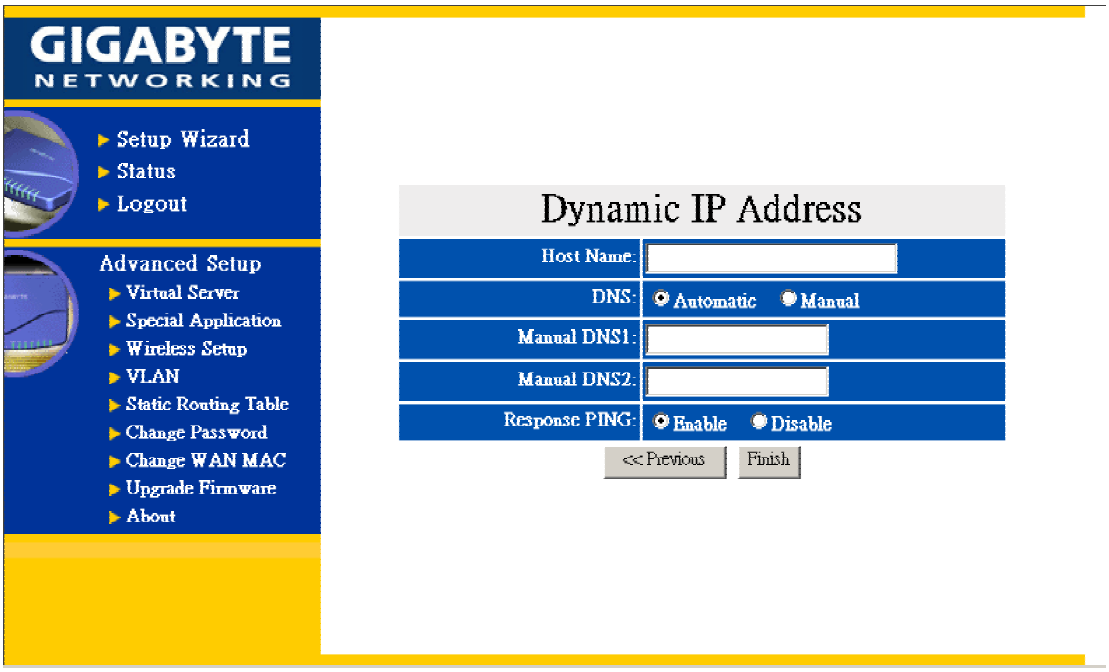
Step 9. Please wait a moment.



Step 10. The IE browser will be automatically connected to the main menu, and your setup has completed by then. Please use your IE connect to Internet.

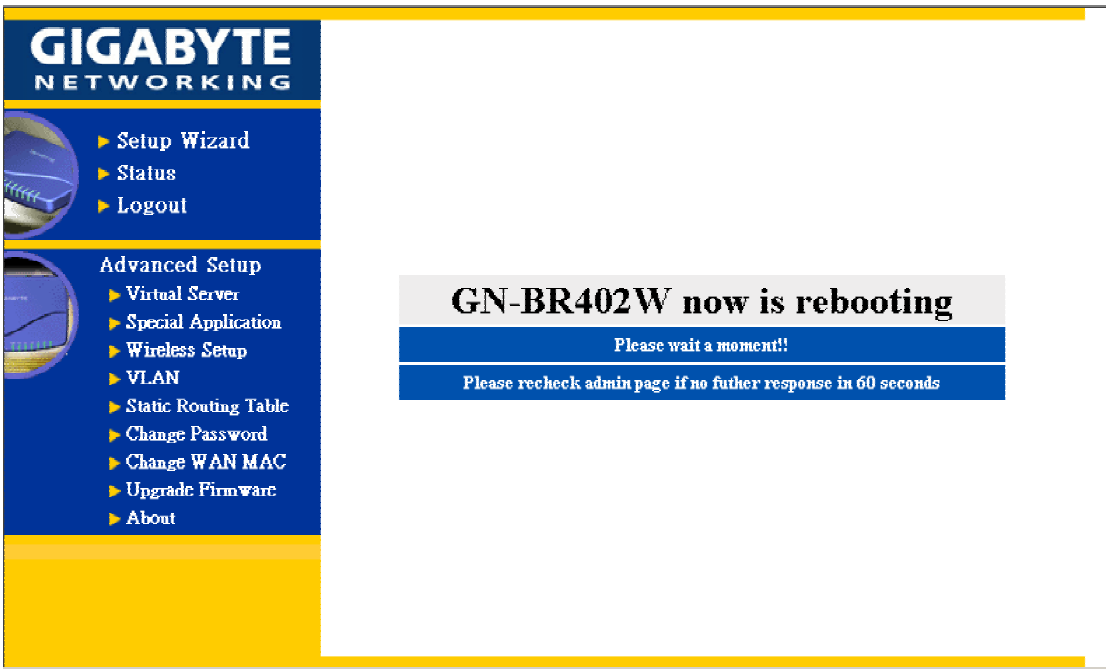
If you can connect to the Internet , the setting is completed. If you use the Wireless Lan Card connection , please continue to section 3-4 Wireless Basic Setting.

Step 11. If you select the “Dynamic IP Address” in the WAN TYPE SELECT, the following screen will appear. First, select “Automatic” or “Manual” DNS. Please key in the Host Name and Manual DNS IP address if you select “Manual” DNS. Press “Finish” to go to next step.



Step 12. After “Reboot” is pressed, it proceeds with the next step.

Step 13. Please wait a moment.



Step 14. The IE browser will be automatically connected to the main menu, and the setup is completed by then. Please use your IE connect to Internet.

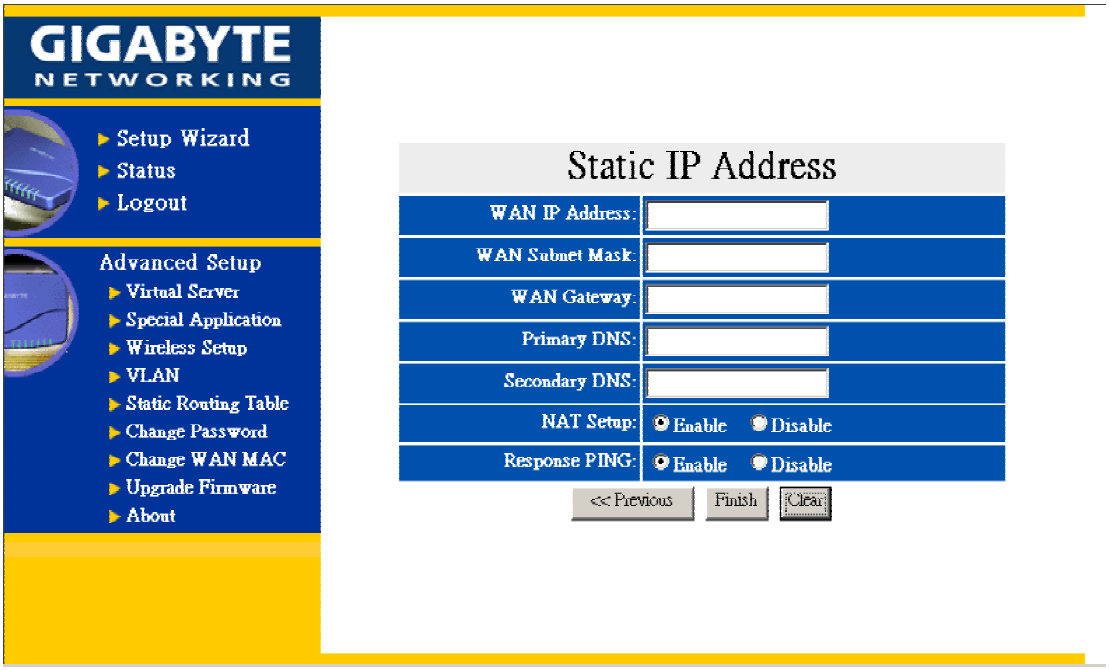
If you can connect to the Internet , the setting is completed. If you use the Wireless Lan Card connection , please continue to section 3-4 Wireless Basic Setting.

Step 15. If you select “Static IP Address” in the WAN TYPE SELECT, please key in the data provided by the wideband company in the following fields as shown below:

a. If your wideband company gives you more than one IP address, then select one of them to fill in the column in the following fields.

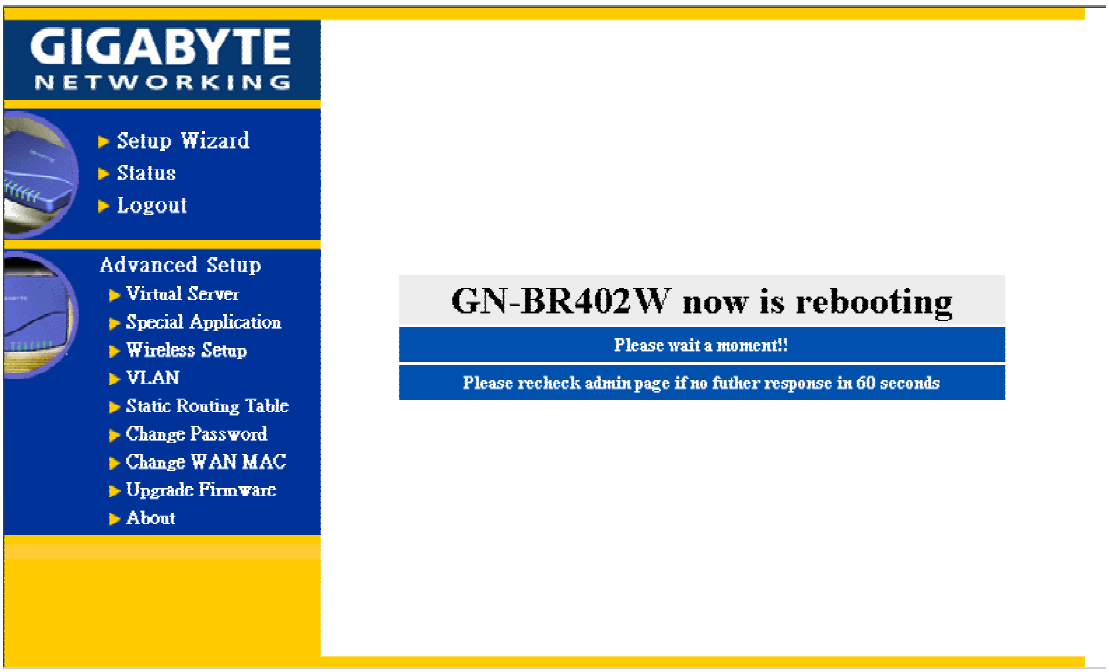
b. Static IP Setup

Normal Users please use "NAT enable" then connect to Internet in general.



Step 16. After “Reboot” is pressed, it proceeds with the next step.

Step 17. Please wait for a moment.



Step 18. The IE browser will be automatically connected to the main menu, and the setup at the PC end is completed by then. Please use your IE connect to Internet.

If you can connect to the Internet , the setting is completed . If you use the Wireless Lan Card connection , please continue to section 3-4 Wireless Basic Setting.

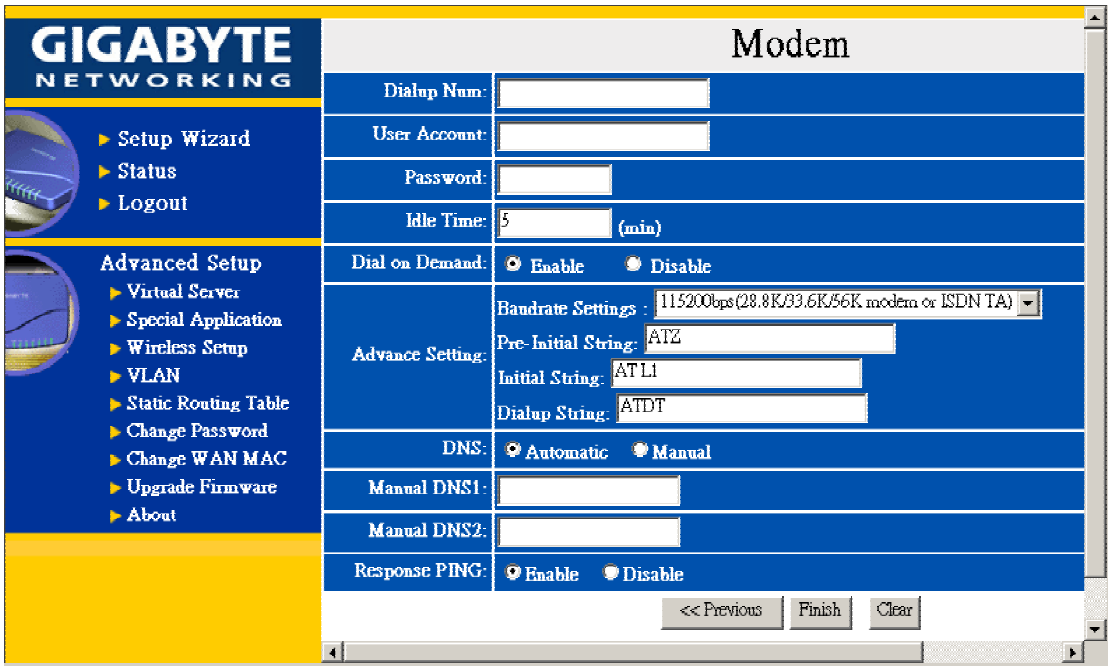
Step 19. If you select “PPP(Modem)” in the WAN TYPE SELECT, please key in the data provided by the ISP company in the following blanks , then click “finish” , shown as below:

Dailup Num, User Account and Password :

Those data are assigned from your ISP.

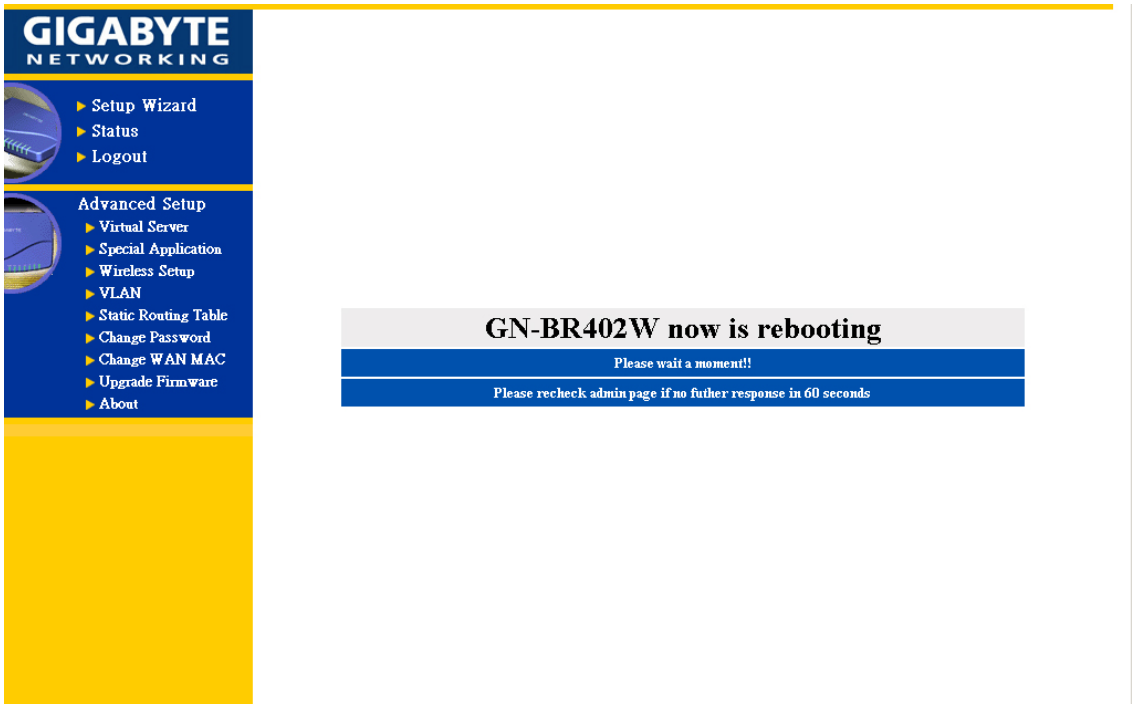
Advance Setting:

Each setup item of the Modem Advance setting is default setting, and is not necessary to make change to it for normal operation.



Step 20. After “Reboot” is pressed, it proceeds with the next step.

Step 21. Please wait for a moment.

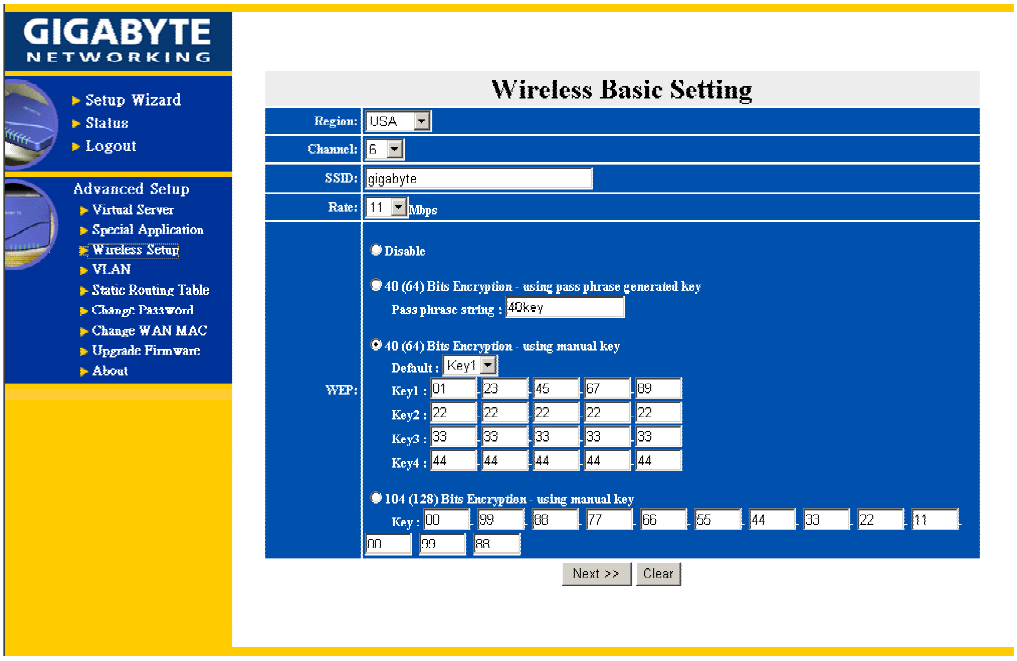


Step 22. The IE browser will be automatically connected to the main menu, and the setup at the PC end is completed by then. Please use your IE connect to Internet.

After rebooting successfully, the Modem will begin dailing-up. When it establishes the connection then it means you can surf the Internet. If you use the Wireless Lan Card connection, please continue to 3-4 Wireless Basic Setting.

3-4 Wireless Basic Setting

Step1. Please key in the data then Click “Next”.



Region

Because of the different region has different open channel regulations, please choose your local area, system will change to your local area utilize channel list automatically.

Channel

Please choose the Channel where you at, different area has different channel range, the default value is channel 6.

SSID

The default value is “gigabyte”, if the setup value is the default value, like “router”, Only can accept the computer connection, which use the Wireless card ESSID (or SSID) set up, is “router”. (Note: The maximum length of SSID is 32bit letter of English or numeral and remember what you type, its case sinstive.)

Rate

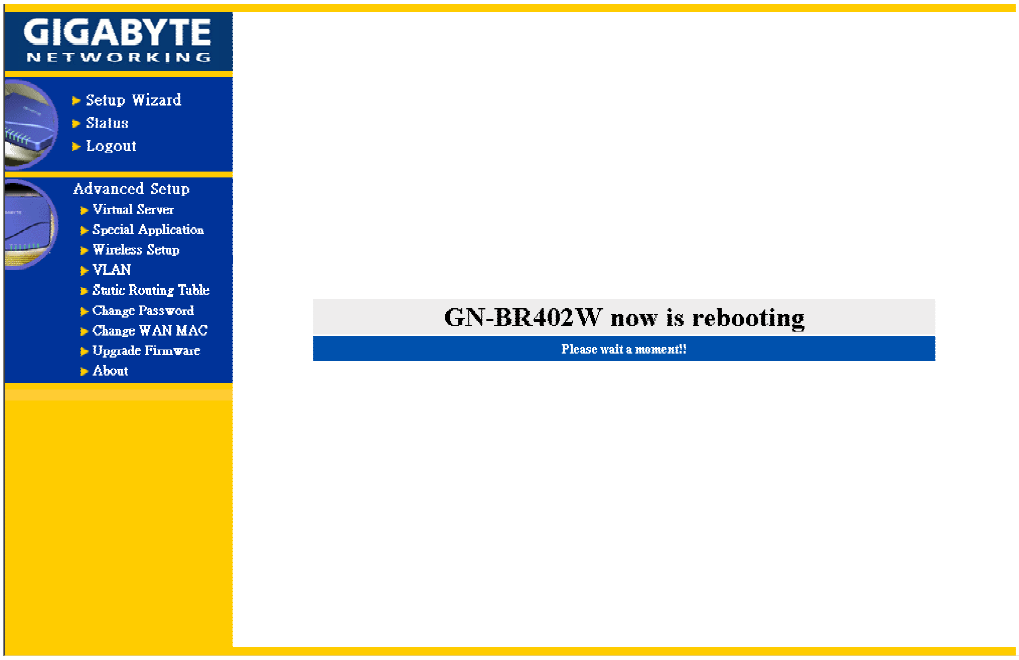
There are four chooses for the Maximum transition rates, 11Mbps/5.5Mbps/2Mbps/1Mbps.

WEP Setup

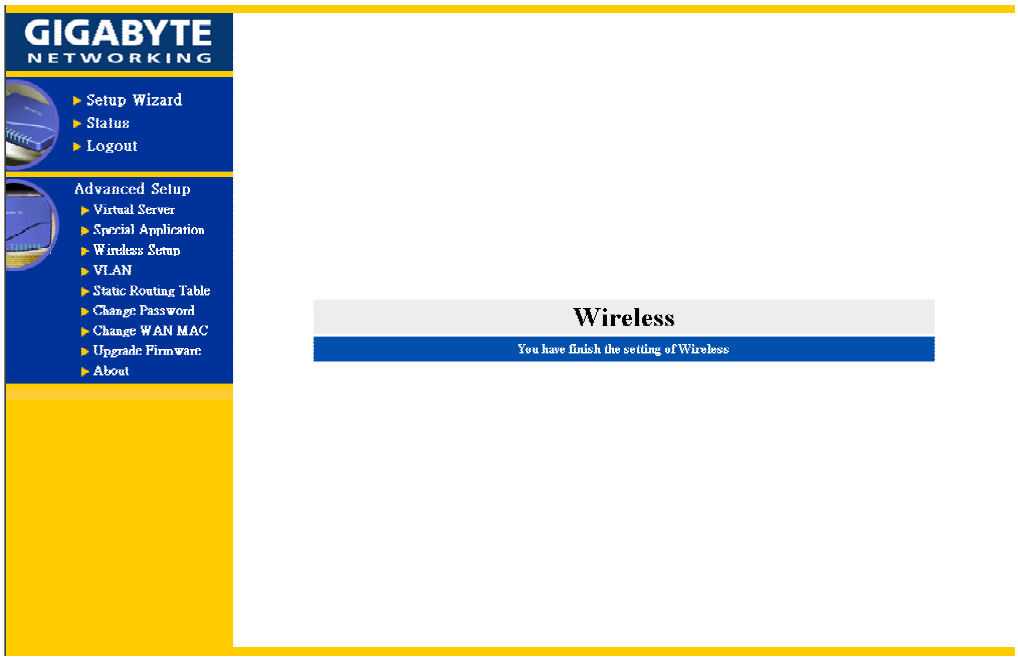
Five chooses as following:

1. Not use.
2. Using 64-bit WEP encryption, and using pass phase change to the key. For the wireless card portion, please setup the first set password value.
3. Using 64-bit WEP encryption, enter to the key manually, and be able to choose what group of key as well.
4. Using 128-bit WEP encryption, and using pass phase change to the key. For the wireless card portion, please fill up the password on the first set password area.
5. Using 128-bit WEP encryption, enter to the key manually.

Step2. Please wait for a moment.



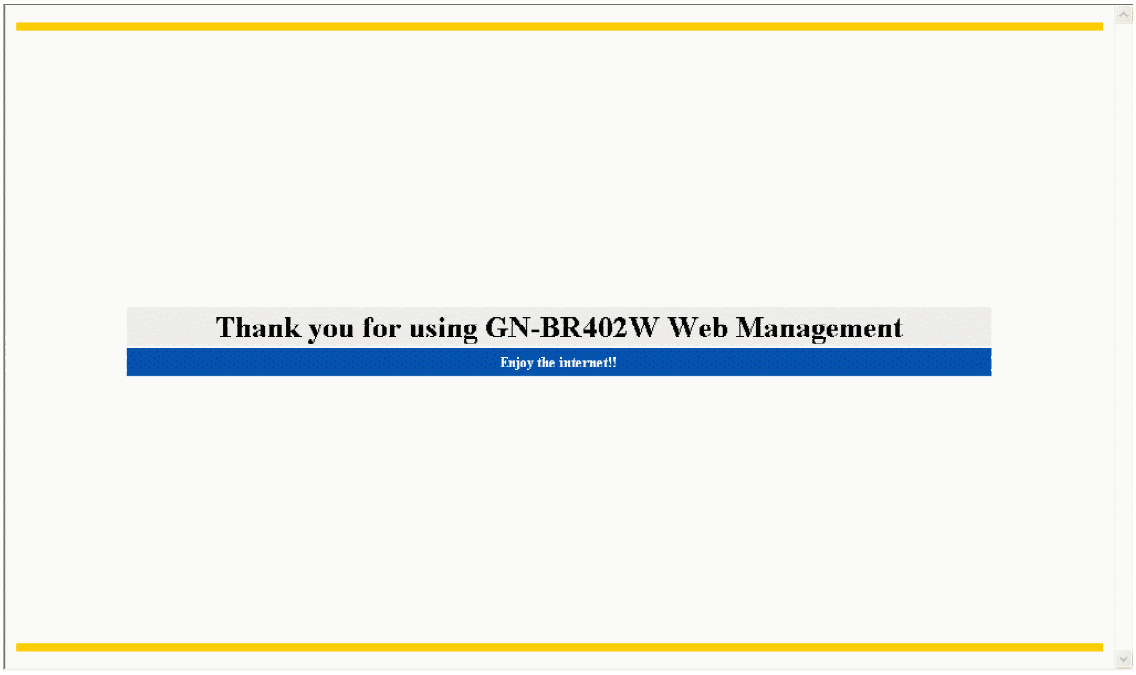
Step3. After the Wireless Basic setting is completed, check the status of the WAN connection. If the status is “connect” then you can use IE to the Internet, else please click the “connect” bottom to reconnect.



3-5 Logout

After you finish GN-BR402W setup, please choose “ Logout”.

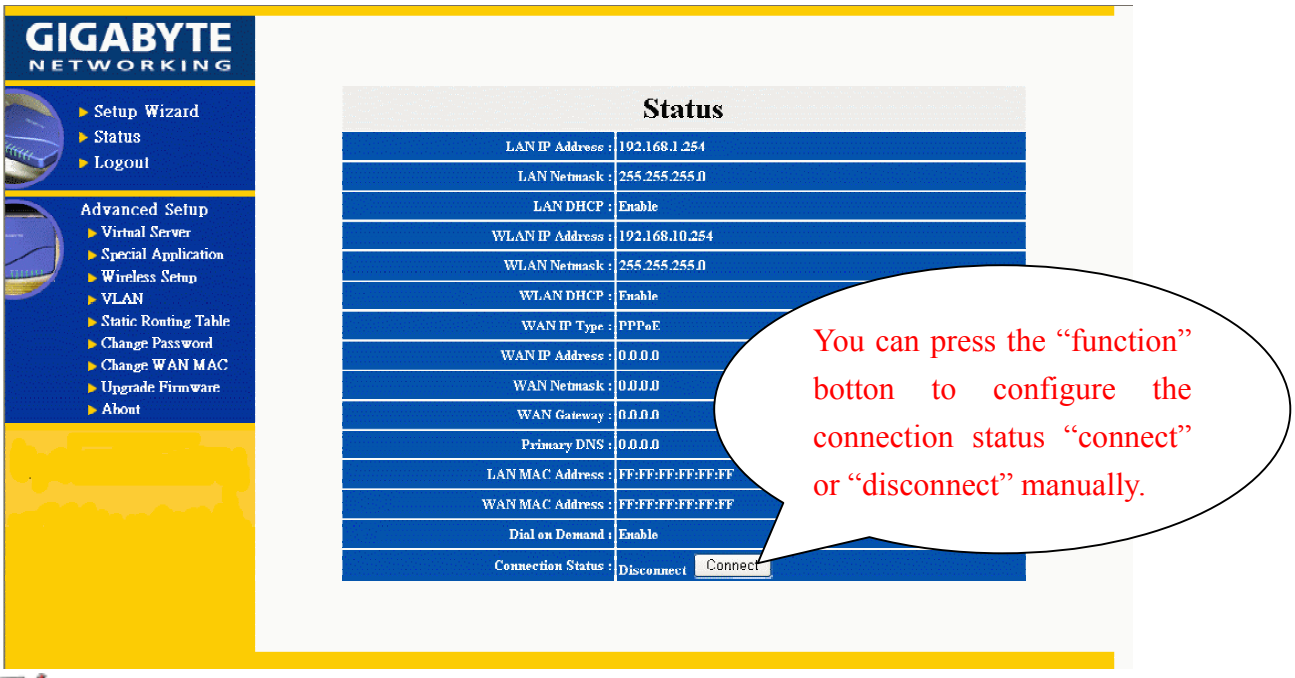
If you don’t exit GN-BR402W Web Management by clicking “Logout” then GN-BR402W Web Management will be occupied by this computer for up to 5 minutes idle time. No others can use Web Management function during this period.



4. Status

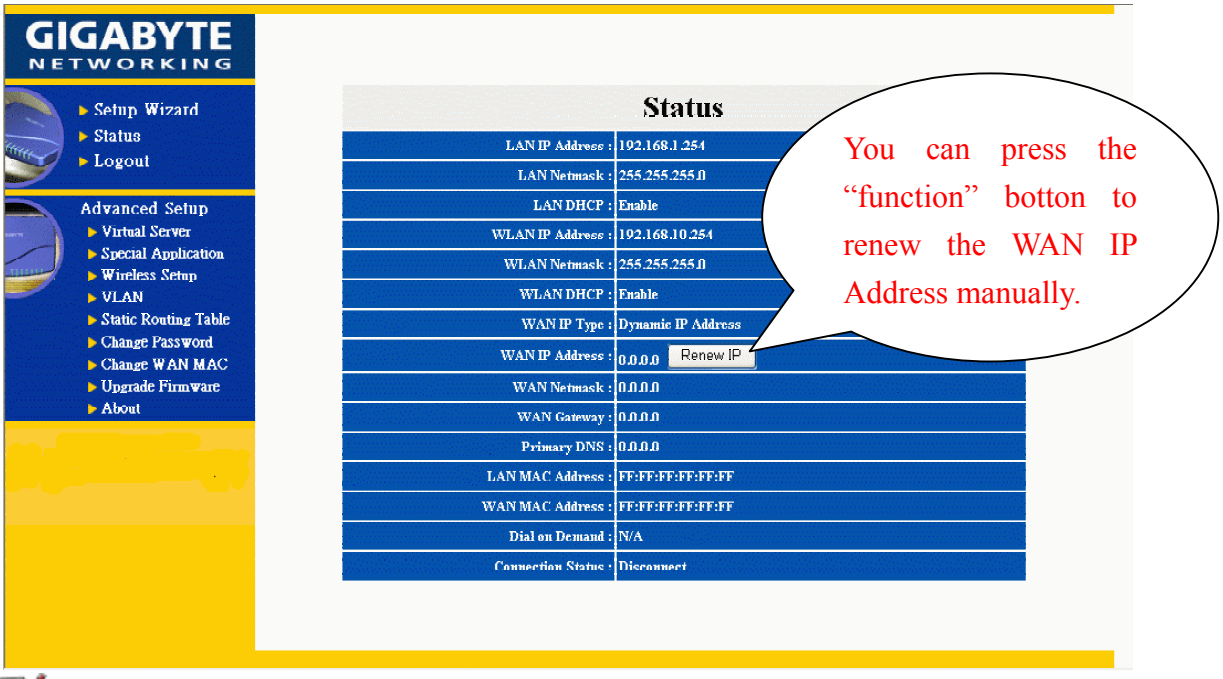
- " Status" screen shows the current basic network setting status.

Status 1. If you select "PPPoE" in the WAN TYPE SELECT, press "Status", and the screen shows as follows:



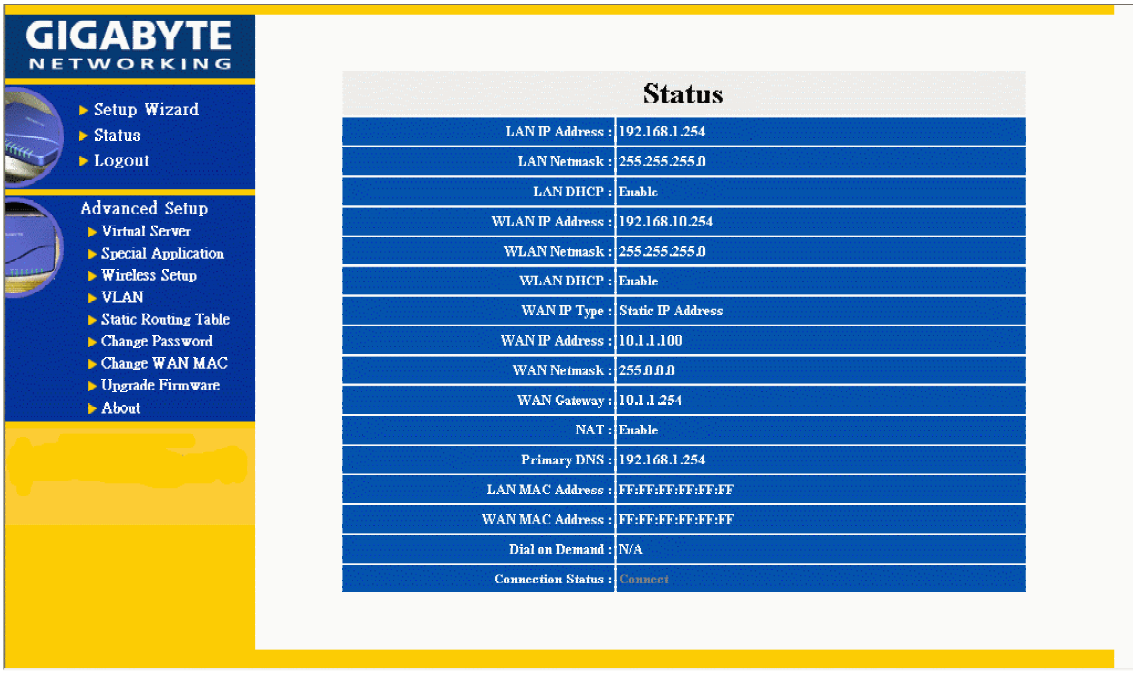
Your network service provider automatically obtains each of the above IP address at the WAN end.

Status 2. If you select "Dynamic IP Address" in the WAN TYPE SELECT, press "Status" screen as follows:

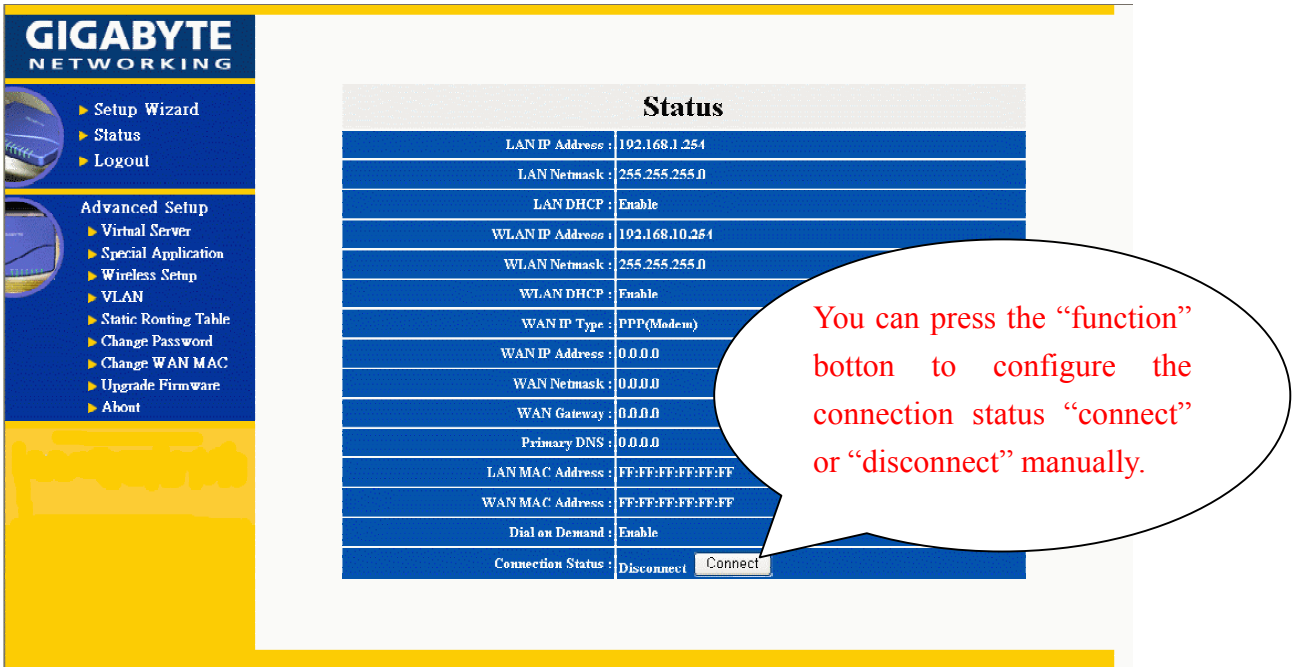


Your network service provider automatically obtains Each IP address of the above WAN end.

Status 3. If you select “Static IP Address” in the WAN TYPE SELECT, press “Status”, and the screen shows as follows:

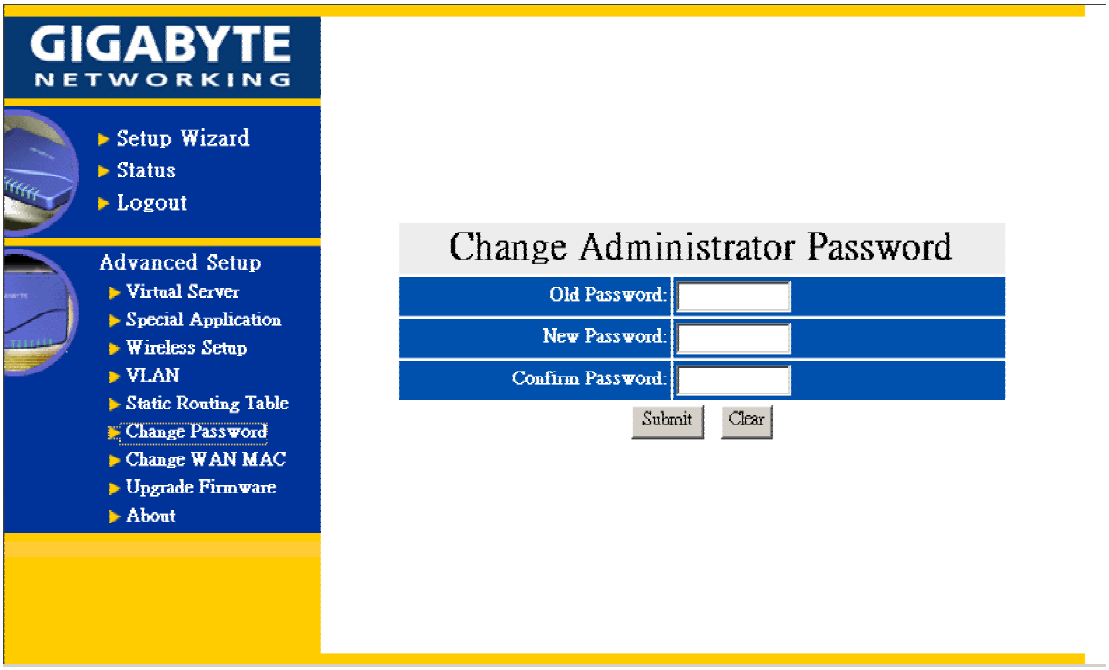


Status 4. If you select “PPP (Modem)” in the WAN TYPE SELECT, press “Status”, and the screen shows as follows:



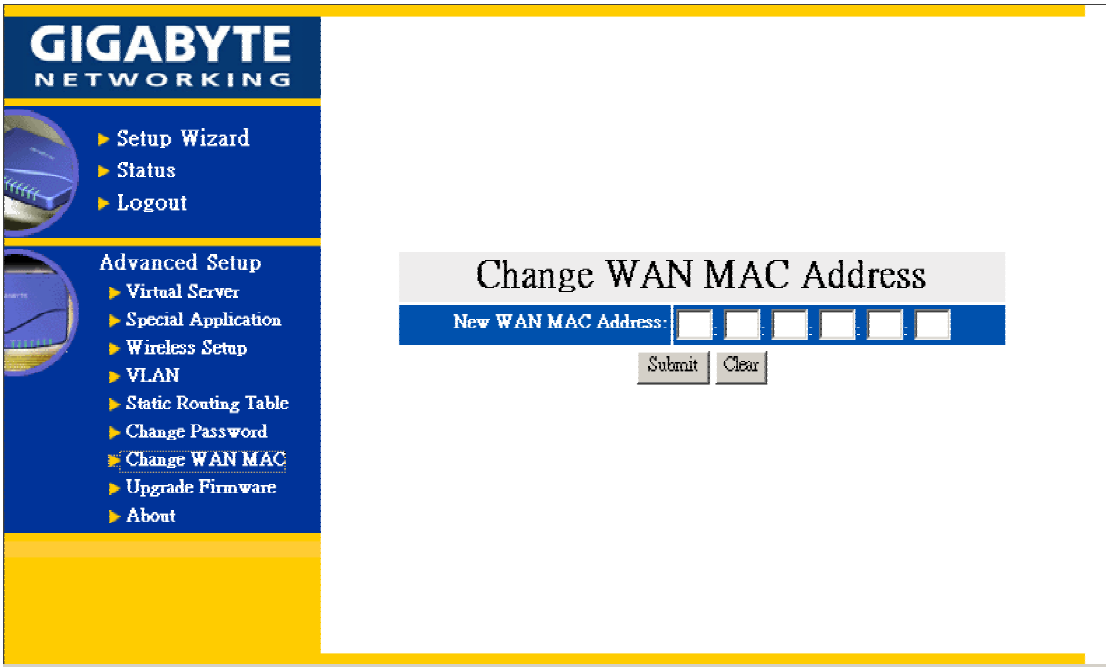
5. Change Password

- Key in your old password, and key in your new password. After your confirmation, key in your new password once again, and the procedure will complete after you press: “Submit”.



6. Change MAC address

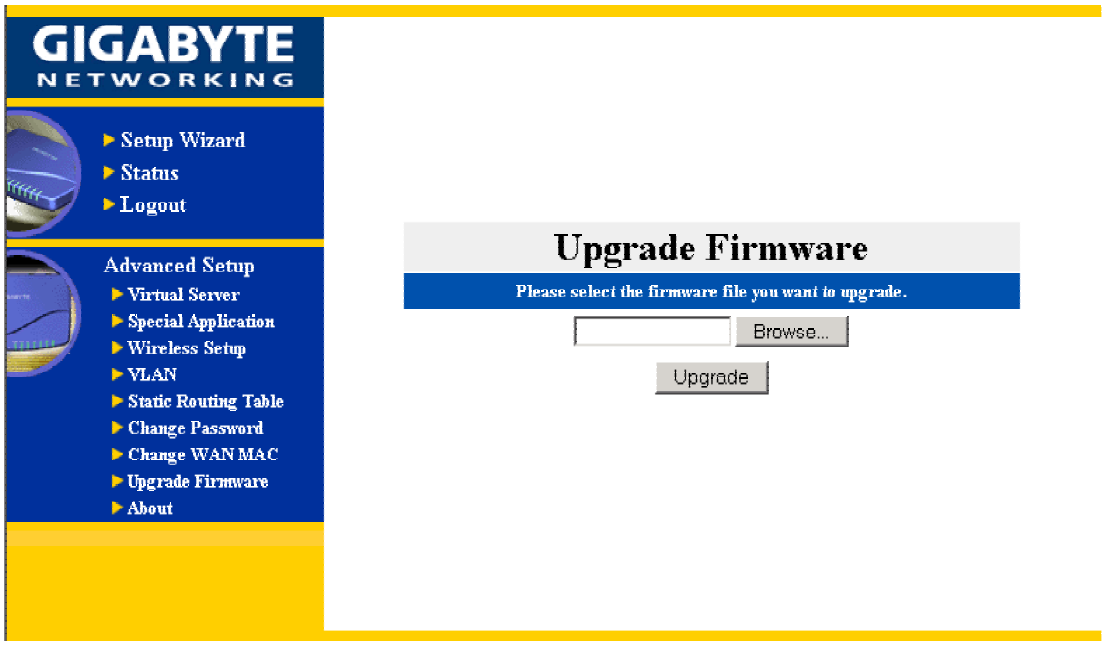
- If your ISP Company asks you to use the original MAC address. You can enter your MAC address at this place.



7. Firmware Upgrade

- Please browse and select your desired upgrade file (firmware version), and press upgrade.

You can download the upgraded firmware version from Gigabyte website and please confirm what type of the firmware that you want to upgrade.



Please wait a moment, and the IE browser will be automatically connected to the main menu, and the setting of our firmware upgrade is completed.

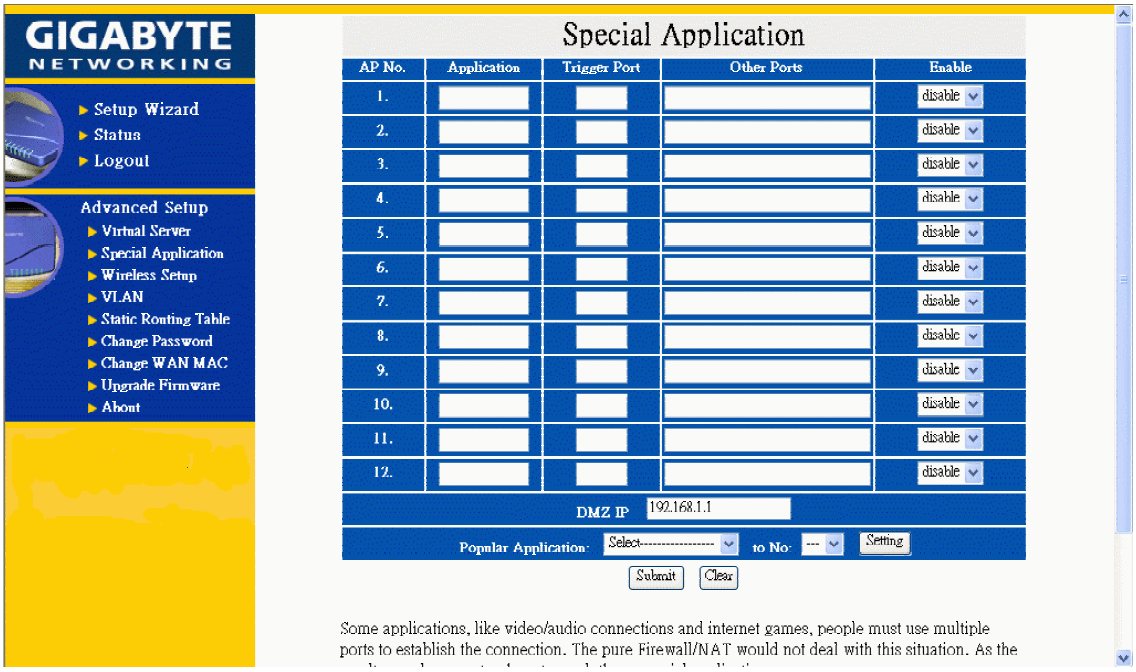
8. Instruction of Using Special Application

When special application program users at the LAN end want to use a certain network application program, such application program needs more set up than the regular connection, and most of these application programs are games or audio/video multimedia. Take AOK (Age of Kings) for example:

- Application: AOK
- Trigger Port: 47624
- Other Ports: 2300 2400,28800 29000
- Enable: enable

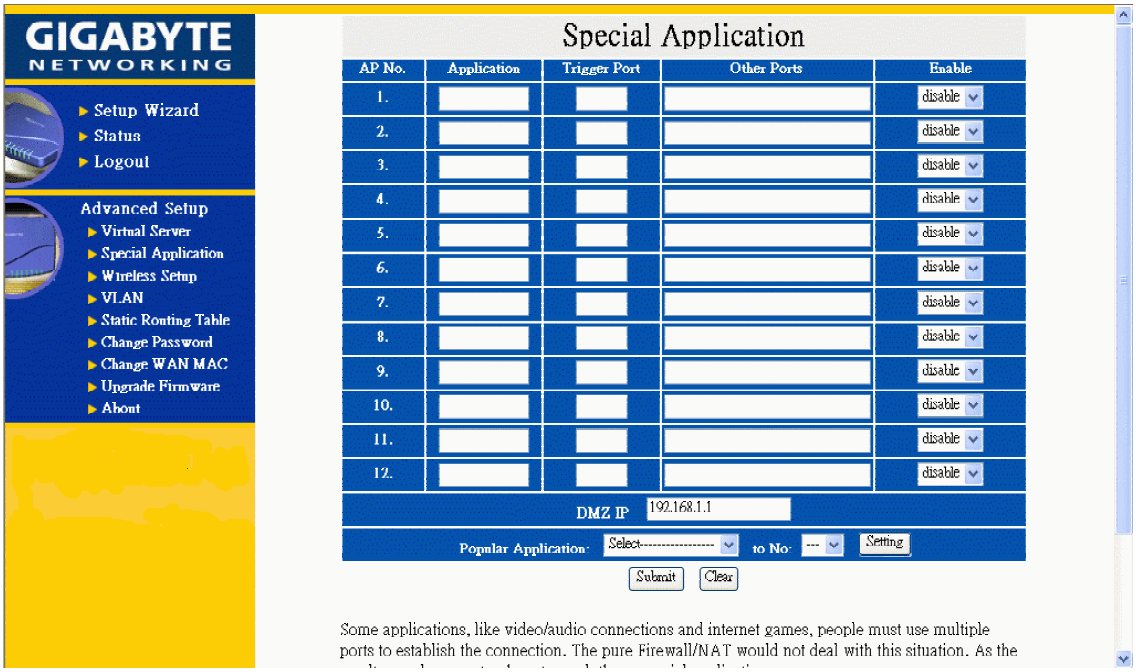
1. Application: Key in the desired software name, such as AOK (Age of Kings); it only needs an input for this field, and its value will not affect the operation of the GN-BR402W.
2. Trigger Port: A port number.
3. Other Ports: The port interval of each section that needs to open is separated by a “space” (e.g. 2300 2400), and each interval is separated by a “comma” (2300 2400**,** 28800 29000).
4. Enable: Select “enable” to open such setting.

Several common application program set-ups are provided at the bottom of the screen. The user can complete the settings by clicking the mouse.



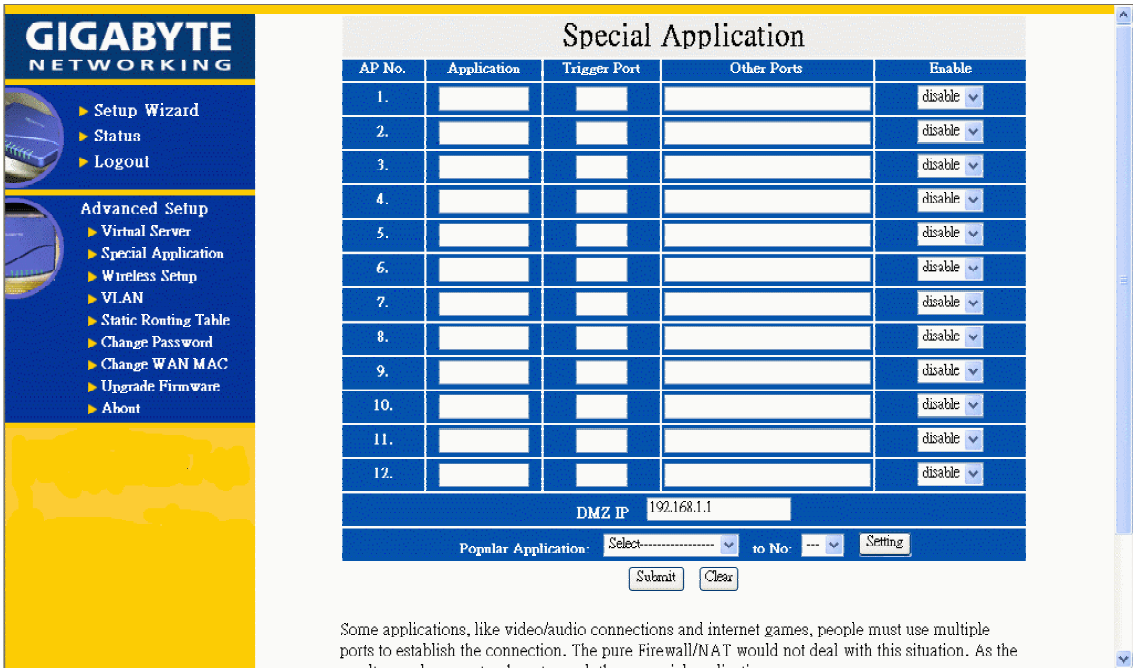
8-1 Instruction of Using DMZ

If we do not know how to set up the triggered port or port number of special application, then the IP Address (such as 192.168.1.1) of PC at the LAN terminal can be used to input to the field of DMZ. Taking NetMeeting for example, if you just want to call an external computer from the computer at the LAN terminal, it does not need any set up. However, if you want to let the external PC to call the computer at the LAN terminal, then the virtual IP Address must be filled in the field of DMZ.



8-2 Instruction of Using Netmeeting

1. If we need to actively call the PC of the external network from the PC at the LAN terminal, it does not need special set up.
2. To let a PC at the WAN end call a PC at the LAN end, set the virtual IP Address (such as 192.168.1.1) of the PC at the LAN end to the DMZ field in the Special Application as shown in the following figure. The PC at the WAN end can call the external IP Address (provide by the ISP) of the GN-BR402W, and the internally connects to such PC.



9. Instruction of Using the Virtual Server

Virtual server provides a way to let the PC at the WAN end connect to a server of a PC at the LAN end.

Taking the IP Address 192.168.1.1 of a PC on a FTP (port:21) at the LAN end for example:

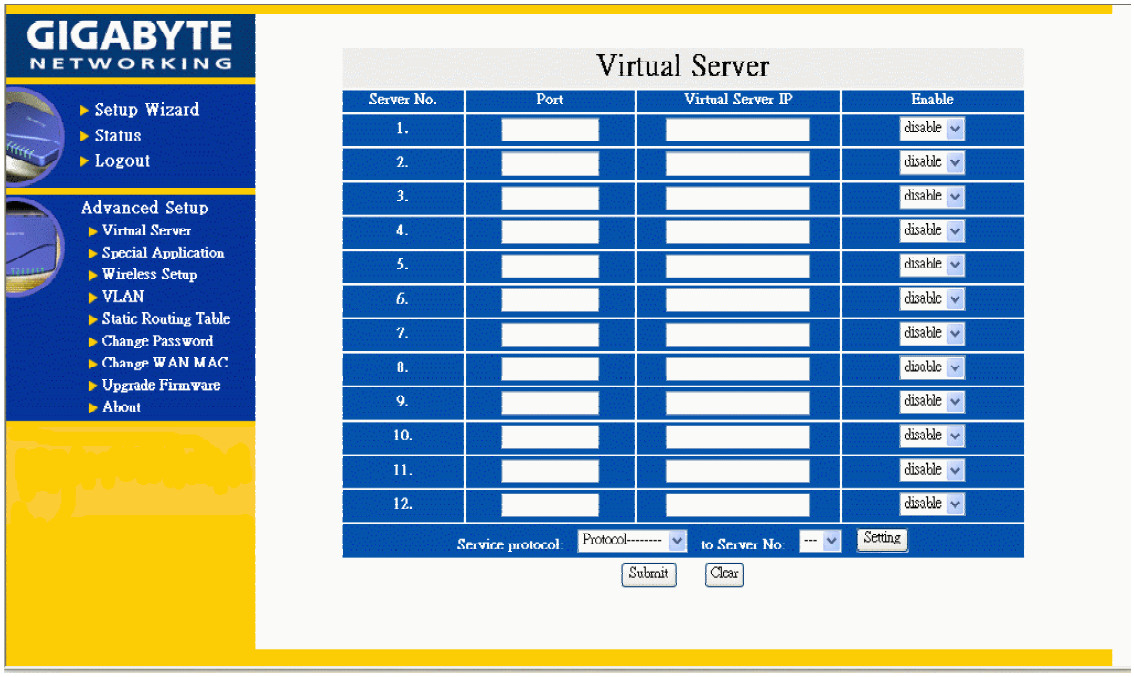
Port: 21

Virtual Server IP: 192.168.1.1

Enable: enable

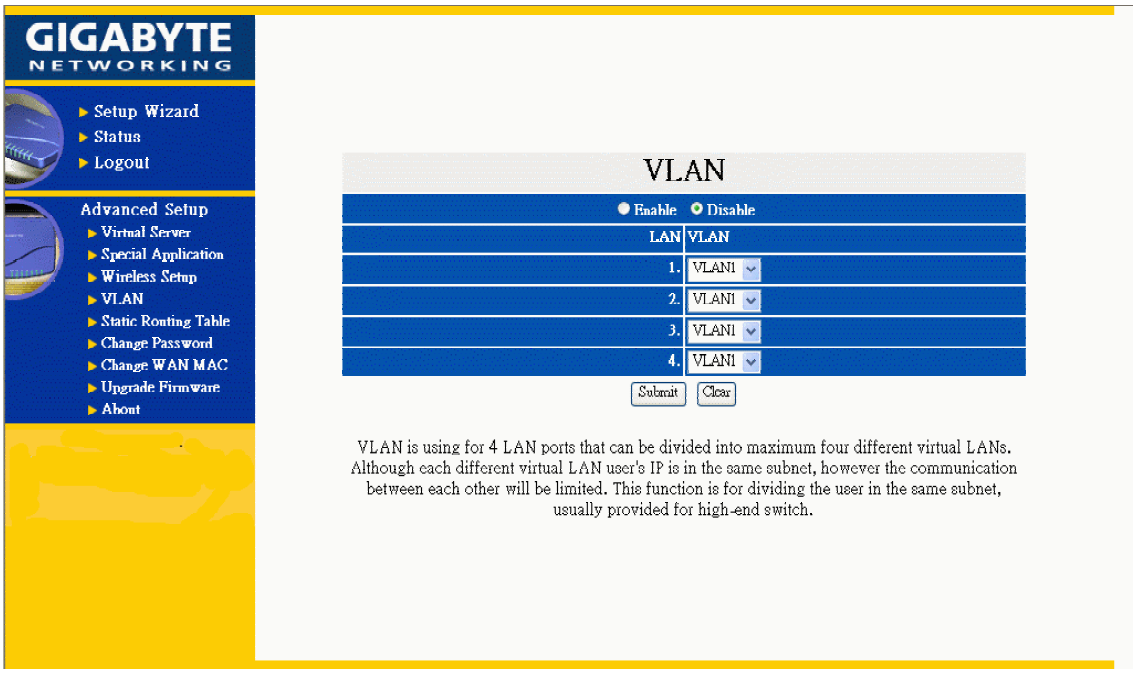
The PC at the WAN end can connect to the internal FTP server at the IP address 192.168.1.1 via the WAN end of the IP Address of the FTP GN-BR402W.

At the bottom of the screen, we provide several common server port numbers for the setting, and the user can click one of them, and then fill in the virtual IP address set for the server to complete the set up.



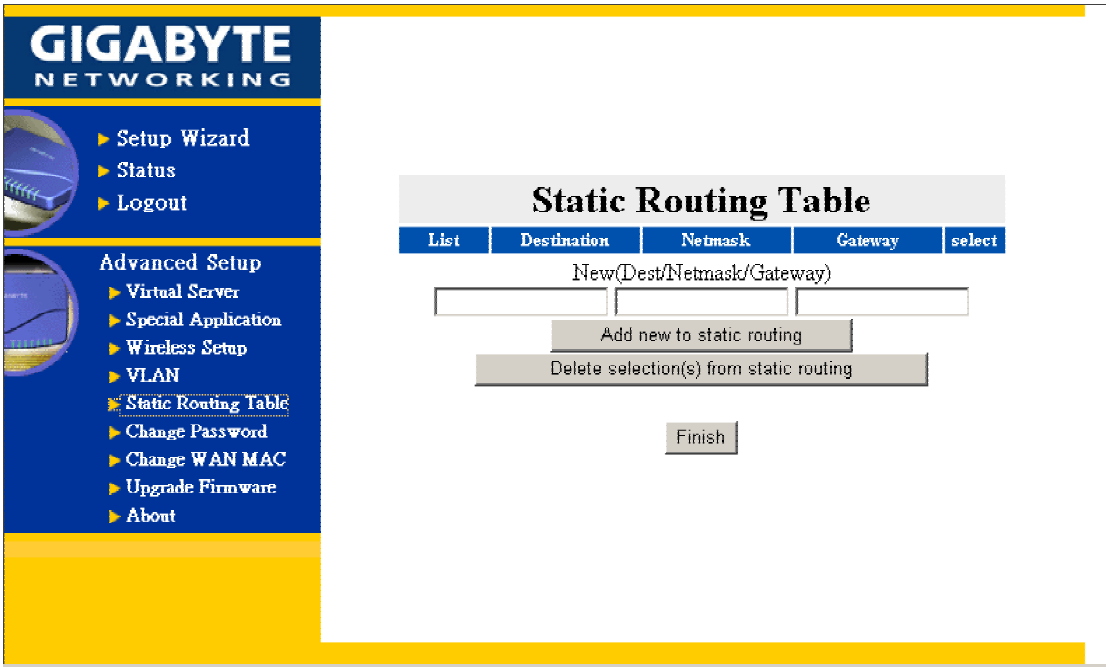
10. VLAN

VLAN is using for LAN ports that can be divided into maximum four different virtual LANs. Although each different virtual LAN user's IP is in the same subnet, however the communication between each other will be restricted. This function is for dividing the users in the same subnet, usually provided for high-end switch.



11. Static Routing Table

Under some of Internet environments, some of the subnet do not go through the default gateway. Users can add those routing information to Static Routing Table themselves.



You can enter new routing information and click “Add new to Static routing” then there will add the new routing information to Static Routing Table. Otherwise, you can mark the checkbox of the routing table that you want to delete and click “Delete selection(s) from static routing” then there will delete the marked routing information from Static routing table. Press “Finish”.

12. Troubleshooting

Q: What to do if you forget your password or forget the IP address of the GN-BR402W?

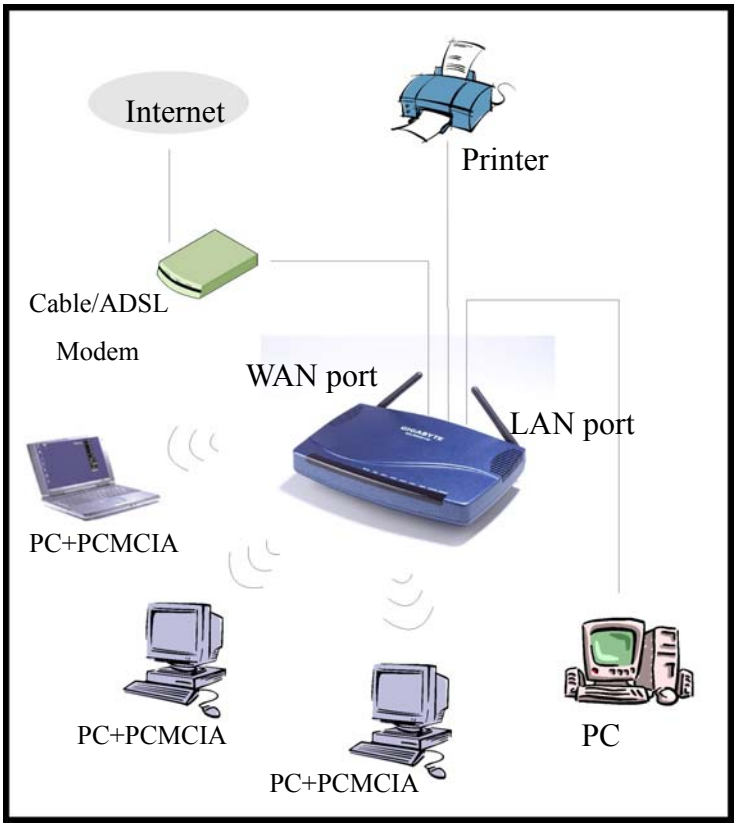
Please press the “init” bottom on the GN-BR402W about 5 sec. The GN-BR402W will be restart and the system setting will restore to default value.

Q: Unable to connect to Internet?

- Please confirm whether or not the power cord is connected properly, and the power indicating light of the GN-BR402W is normal.
- Please confirm whether or not all of the settings described in this manual are set.
- Please confirm if ADSL or Cable Modem operates properly, and if the ISP network service expires.
- Please confirm if your network cable is connected properly, and the LED status is normal.

13. Appendix

(A) GN-BR402W Functional Diagram



(B) USB Driver Installation

Preface

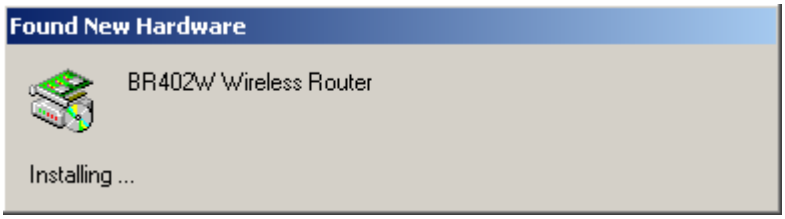
1. Before installing the USB driver, please refer to Section 3-2 for the installation at your PC end. If "obtain an IP address automatically" is not selected in the installation at your PC, then you should know the following information:
   IP address ranges from "192.168.2.1" to "192.168.2.252"
   Subnet Mask "255.255.255.0"
   Default Gateway "192.168.2.253".

2. Follow the "Found New Hardware Wizard" to complete the GN-BR402W USB Driver Installation.

Steps:

Please connect the power to the GN-BR402W and wait until the GN-BR402W completely boots up (when the status LED is off). Connect the USB cable to the USB slot on your computer and the USB slot of the GN-BR402W.

The following screen will appear:



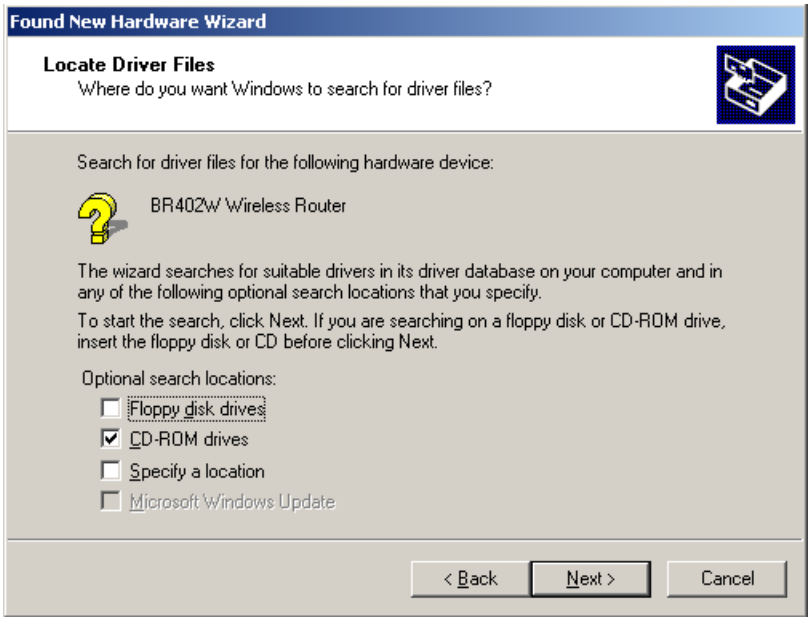
Please press "Next" for next step.

Found New Hardware Wizard
Welcome to the Found New Hardware Wizard
This wizard helps you install a device driver for a hardware device.
To continue, click Next.
< Back
Next >
Cancel

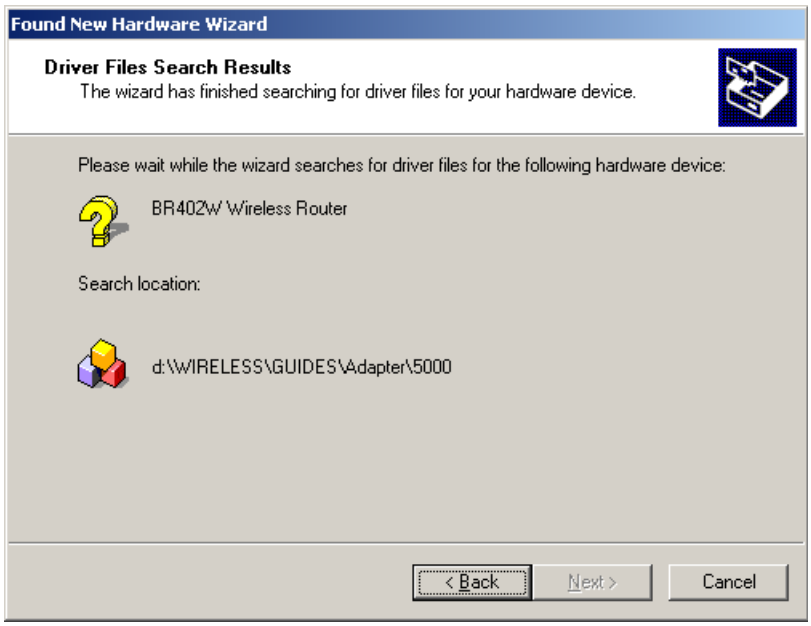
Please choose “Search for a suitable driver for my device (recommended)”, and then press “Next” for next step.

Found New Hardware Wizard
Install Hardware Device Drivers
A device driver is a software program that enables a hardware device to work with an operating system.
This wizard will complete the installation for this device:
BR402W Wireless Router
A device driver is a software program that makes a hardware device work. Windows needs driver files for your new device. To locate driver files and complete the installation click Next.
What do you want the wizard to do?
Search for a suitable driver for my device (recommended)
Display a list of the known drivers for this device so that I can choose a specific driver
< Back
Next >
Cancel

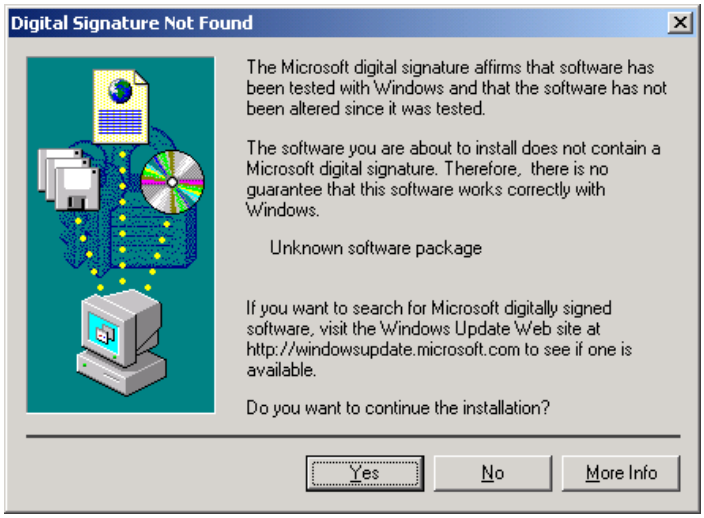
Please choose the location where you place the GN-BR402W Driver , and then press “next”.


Found New Hardware Wizard
Locate Driver Files
Where do you want Windows to search for driver files?
Search for driver files for the following hardware device:
BR402W Wireless Router
The wizard searches for suitable drivers in its driver database on your computer and in any of the following optional search locations that you specify.
To start the search, click Next. If you are searching on a floppy disk or CD-ROM drive, insert the floppy disk or CD before clicking Next.
Optional search locations:
Floppy disk drives
CD-ROM drives
Specify a location
Microsoft Windows Update
< Back
Next >
Cancel

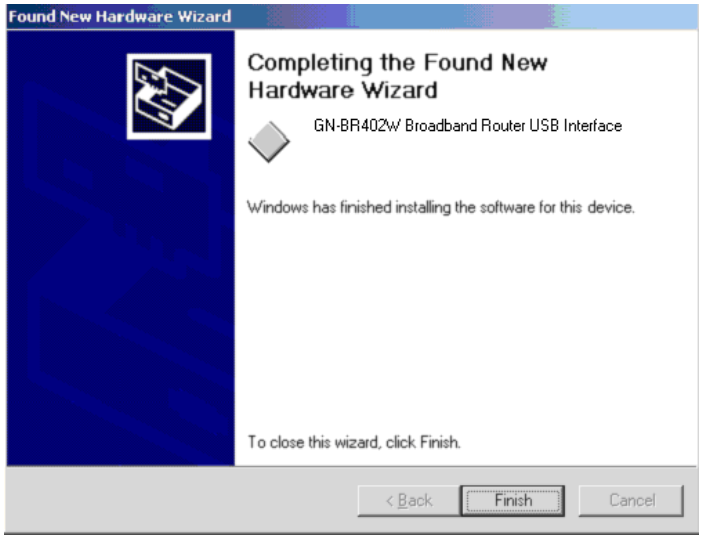
Please click “Next” for next step.


Found New Hardware Wizard
Driver Files Search Results
The wizard has finished searching for driver files for your hardware device.
Please wait while the wizard searches for driver files for the following hardware device:
BR402W Wireless Router
Search location:
d:\WIRELESS\GUIDES\Adapter\5000
< Back
Next >
Cancel

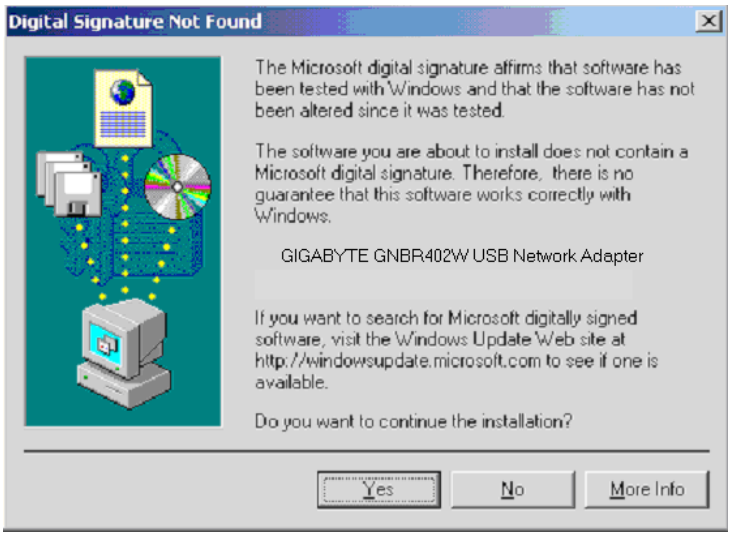
Please click “Yes” for next step.


Digital Signature Not Found
The Microsoft digital signature affirms that software has been tested with Windows and that the software has not been altered since it was tested.
The software you are about to install does not contain a Microsoft digital signature. Therefore, there is no guarantee that this software works correctly with Windows.
Unknown software package
If you want to search for Microsoft digitally signed software, visit the Windows Update Web site at http://windowsupdate.microsoft.com to see if one is available.
Do you want to continue the installation?
Yes
No
More Info

Please click “Finish” for next step.


Found New Hardware Wizard
Completing the Found New Hardware Wizard
GN-BR402W Broadband Router USB Interface
Windows has finished installing the software for this device.
To close this wizard, click Finish.
< Back
Finish
Cancel

Please click “Yes”. NOW YOU HAVE COMPLETED THE USB DRIVER INSTALLATION.


Digital Signature Not Found
The Microsoft digital signature affirms that software has been tested with Windows and that the software has not been altered since it was tested.
The software you are about to install does not contain a Microsoft digital signature. Therefore, there is no guarantee that this software works correctly with Windows.
GIGABYTE GNBR402W USB Network Adapter
If you want to search for Microsoft digitally signed software, visit the Windows Update Web site at http://windowsupdate.microsoft.com to see if one is available.
Do you want to continue the installation?
Yes
No
More Info

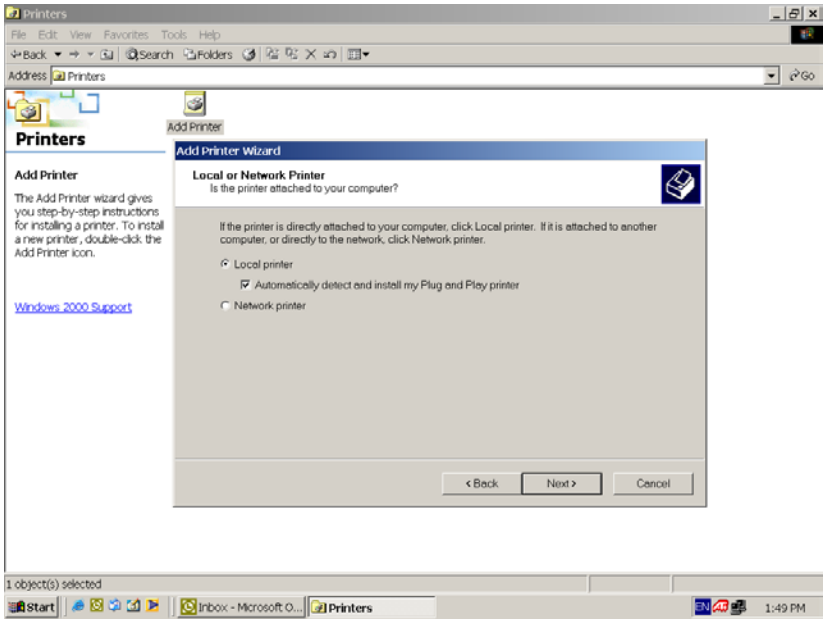
(C) Instruction of Printer Server

The GN-BR402W Wireless Broadband Router can be as a Printer Server, Please follow the setup procedure in Printer Setting. Example as follow:

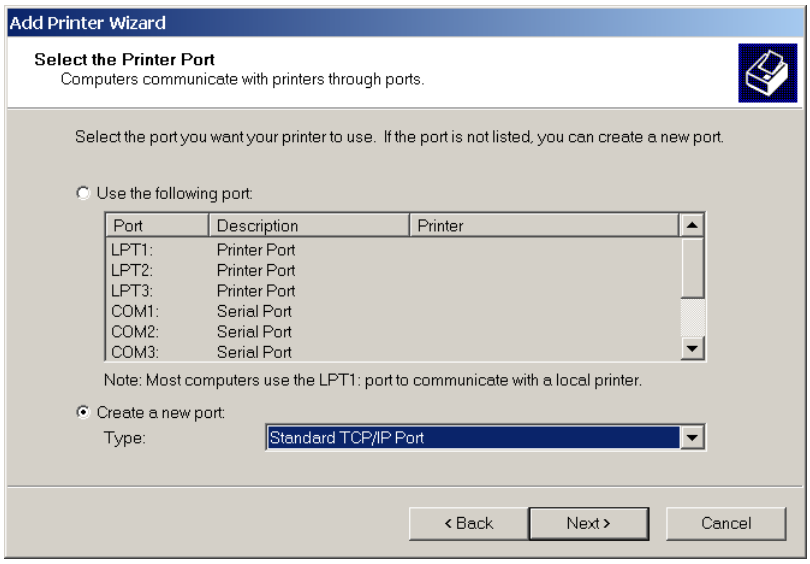
(This function can not support bidirectional printers.)

Windows2000

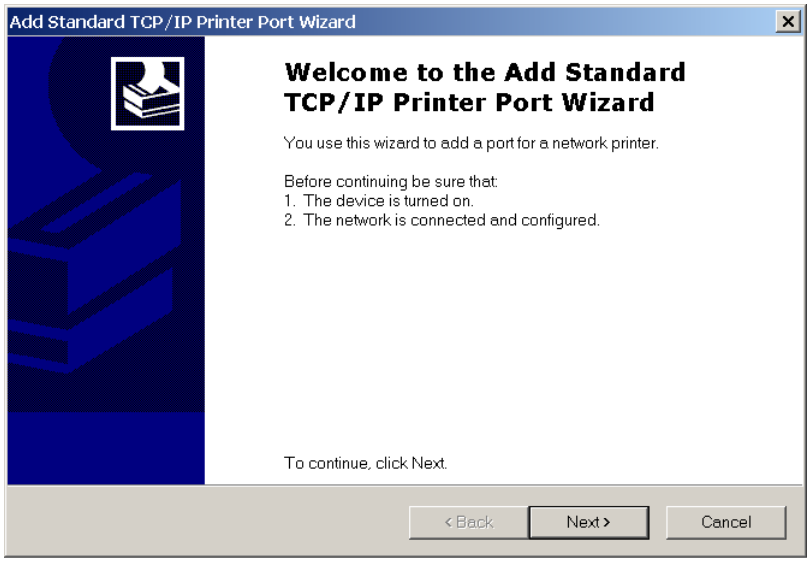
Start > Setting > Printer, Double-Click Add Printer. The Add Printer Wizard dialog will be displayed, please select the **Local Printer** option and press “Next”.


Printers
File Edit View Favorites Tools Help
Back Search Folders
Address Printers
Go
Printers
Add Printer
Add Printer
The Add Printer wizard gives you step-by-step instructions for installing a printer. To install a new printer, double-click the Add Printer icon.
Windows 2000 Support
Add Printer Wizard
Local or Network Printer
Is the printer attached to your computer?
If the printer is directly attached to your computer, click Local printer. If it is attached to another computer, or directly to the network, click Network printer.
Local printer
Automatically detect and install my Plug and Play printer
Network printer
< Back
Next >
Cancel
1 object(s) selected
Start
Inbox - Microsoft O...
Printers
1:49 PM

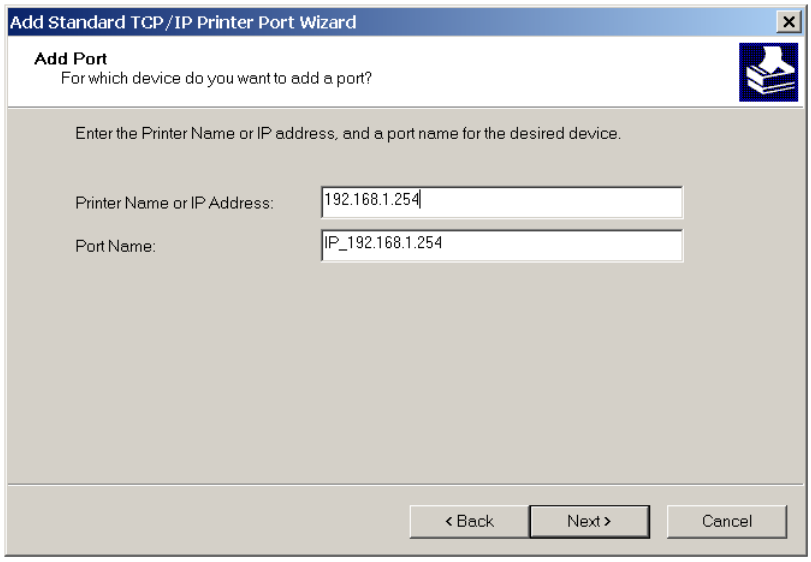
Select **Create a new port** option, Type: “Standard TCP/IP Port” then press “Next”.


Add Printer Wizard
Select the Printer Port
Computers communicate with printers through ports.
Select the port you want your printer to use. If the port is not listed, you can create a new port.
Use the following port:
Port
Description
Printer
LPT1: Printer Port
LPT2: Printer Port
LPT3: Printer Port
COM1: Serial Port
COM2: Serial Port
COM3: Serial Port
Note: Most computers use the LPT1: port to communicate with a local printer.
Create a new port:
Type:
Standard TCP/IP Port
< Back
Next >
Cancel

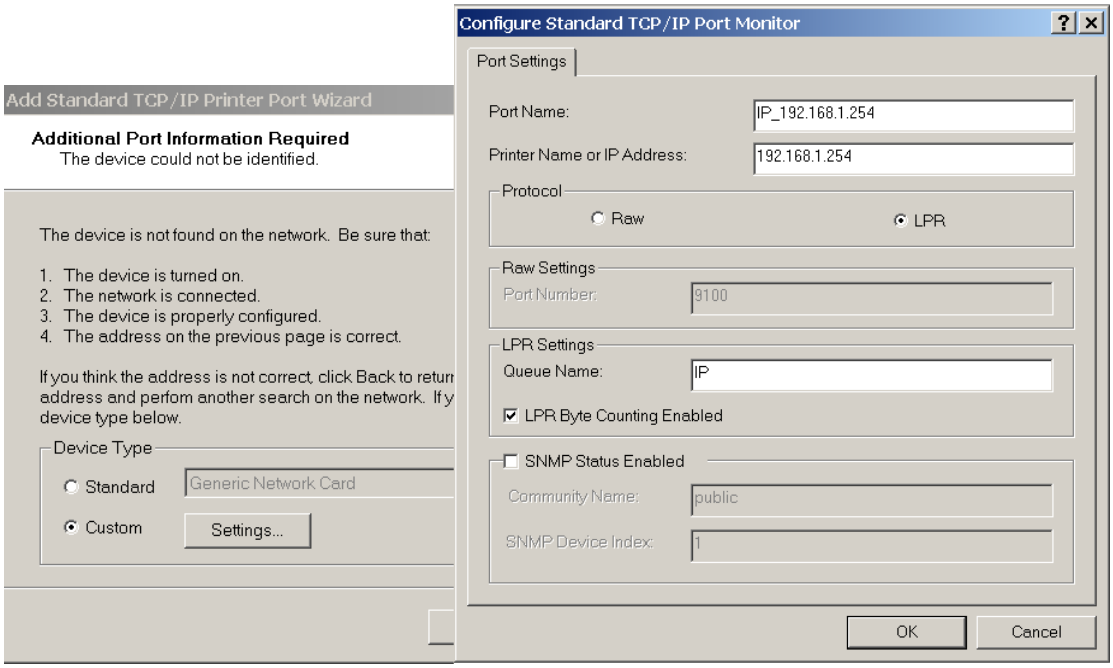
Press “Next”.


Add Standard TCP/IP Printer Port Wizard
Welcome to the Add Standard TCP/IP Printer Port Wizard
You use this wizard to add a port for a network printer.
Before continuing be sure that:
1. The device is turned on.
2. The network is connected and configured.
To continue, click Next.
< Back
Next >
Cancel

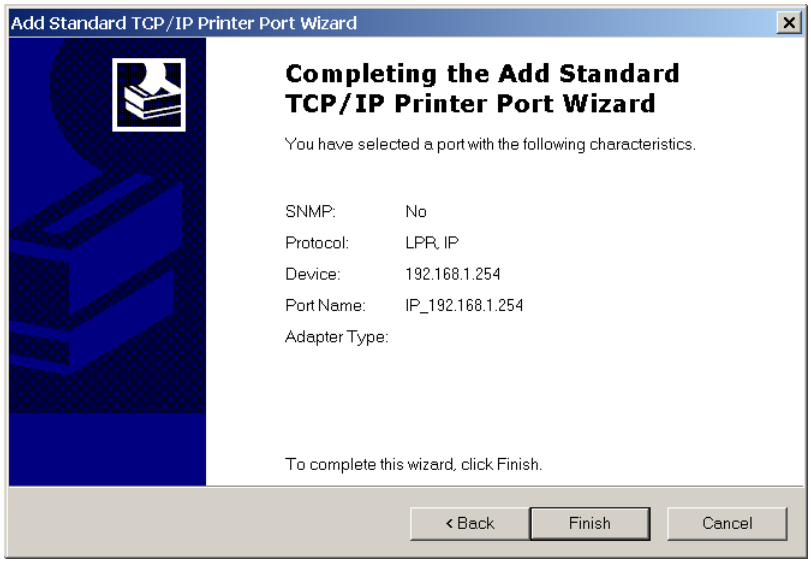
Please enter the Printer Name or IP Address : 192.168.1.254 and the Port Name : IP_192.168.1.254, Press “Next”.


Add Standard TCP/IP Printer Port Wizard
Add Port
For which device do you want to add a port?
Enter the Printer Name or IP address, and a port name for the desired device.
Printer Name or IP Address:
192.168.1.254
Port Name:
IP_192.168.1.254
< Back
Next >
Cancel

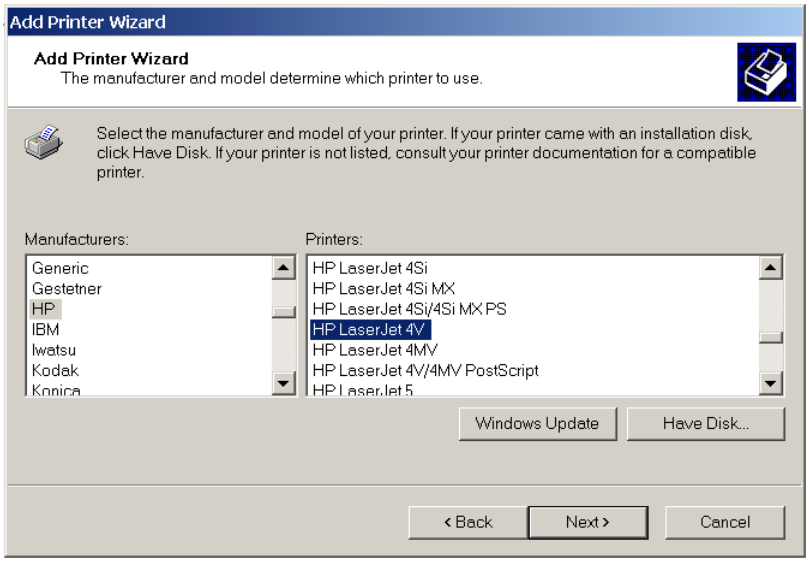
The Device Type selects **Custom** option and press “Setting”. The Configure Standard TCP/IP Port Monitor dialog will be displayed. Enter the **Port Name**: IP_192.168.1.254 and **Printer Name or IP Address** is 192.168.1.254. Select the **LPR** Protocol and enter the **Queue Name**: lp and select the **LPR Byte Counting Enabled** check box in the LPR setting then press “OK”.



Press “Finish”.



Select the manufacturer and model of your printer. (If your printer is not listed, click “Have Disk ” to install your printer driver.) Click “Next”, the wizard will help you finish the installation automatically.



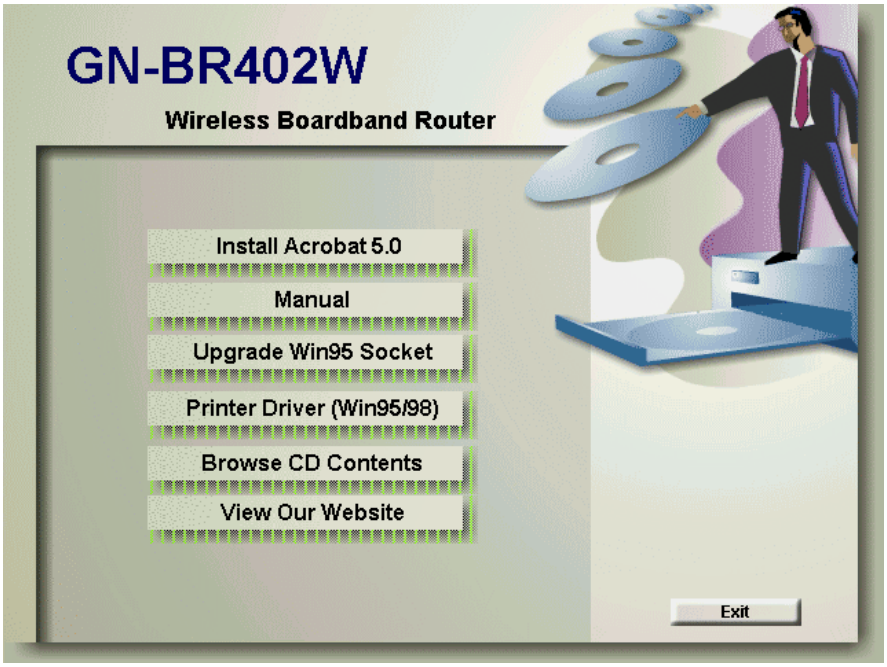
Windows 95/98/ME

For the Windows95/98/ME Operation system, users must install the Giga LPR software to support the "Printer Server" function of the GN-BR402W. Installation procedures as following:

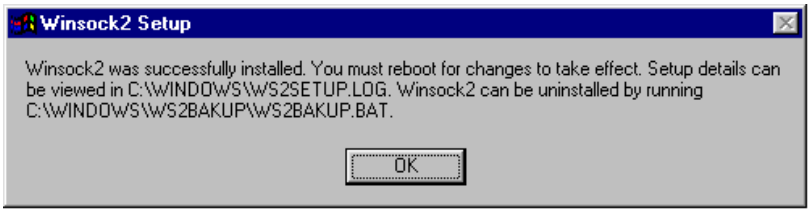
Win95: please start at Step1 ~ Step7. **Win98/ME:** please start at step3 ~ step7.

Before installing the Giga LPR software, it is necessary to upgrade the Win95 Socket for the Windows 95 operation system .

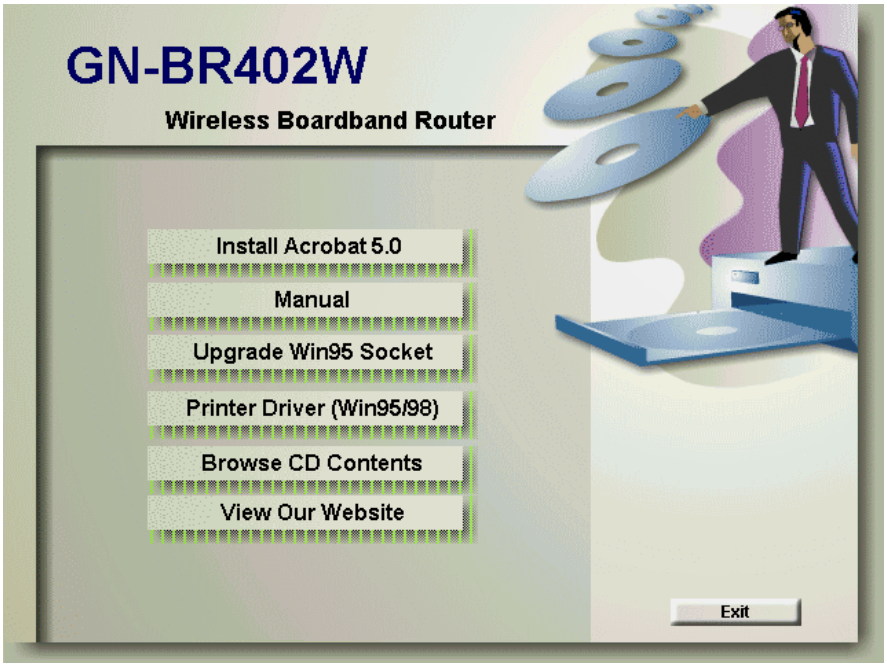
Step1. Please insert the GN-BR402W Driver CD into the system's CD-ROM drive. Click "Upgrade Win95 Socket" on the CD autorun screen.



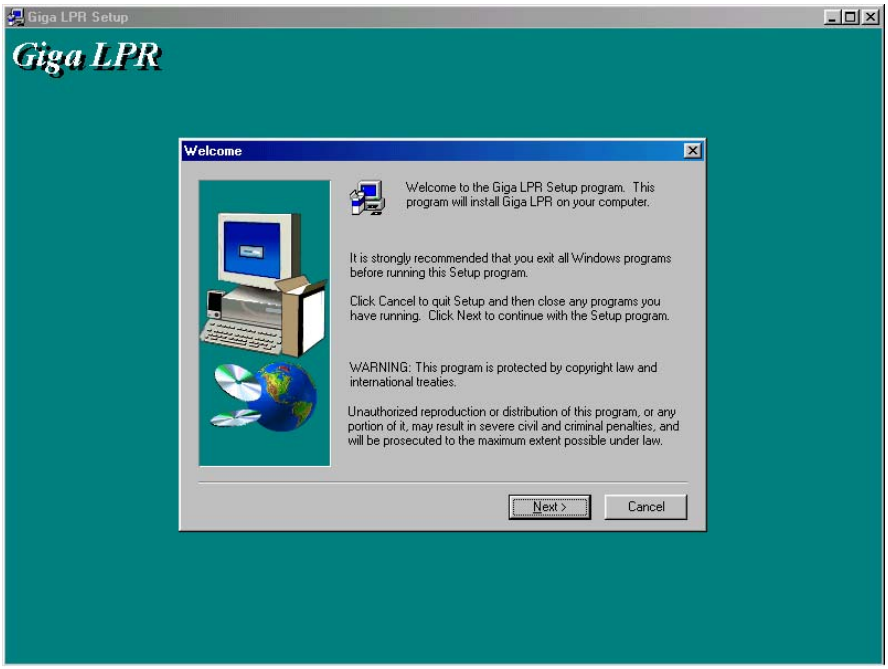
Step2. The Winsock2 Setup screen will appear. Click "OK" and return to the CD autorun screen,then continue to install the Giga LPR software.


Winsock2 Setup
Winsock2 was successfully installed. You must reboot for changes to take effect. Setup details can be viewed in C:\WINDOWS\WS2SETUP.LOG. Winsock2 can be uninstalled by running C:\WINDOWS\WS2BAKUP\WS2BAKUP.BAT.
OK

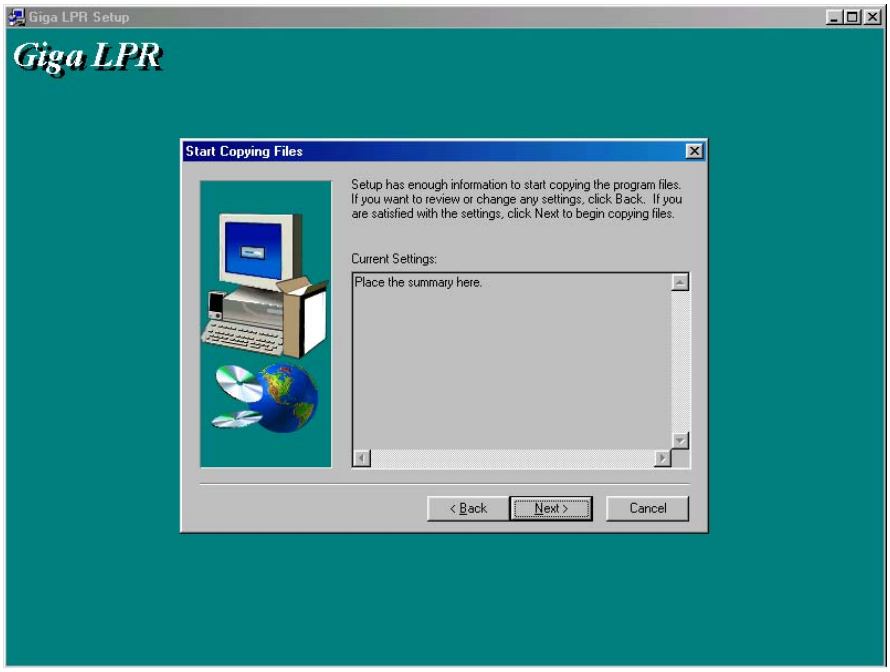
Step3. (Please insert the GN-BR402W Driver CD into the system's CD-ROM drive.) Click the "Printer Driver（Win95/98）" on the CD autorun screen.



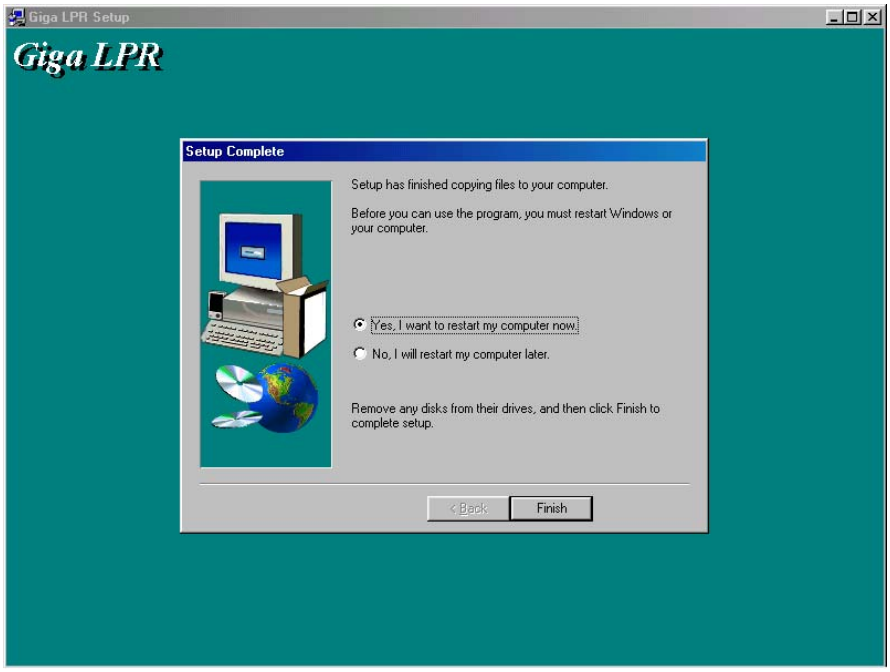
Step4. The Welcome dialog is displayed and click "Next".


Giga LPR Setup
Giga LPR
Welcome
Welcome to the Giga LPR Setup program. This program will install Giga LPR on your computer.
It is strongly recommended that you exit all Windows programs before running this Setup program.
Click Cancel to quit Setup and then close any programs you have running. Click Next to continue with the Setup program.
WARNING: This program is protected by copyright law and international treaties.
Unauthorized reproduction or distribution of this program, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under law.
Next >
Cancel

Step5. Click “Next”.


Giga LPR Setup
Giga LPR
Start Copying Files
Setup has enough information to start copying the program files. If you want to review or change any settings, click Back. If you are satisfied with the settings, click Next to begin copying files.
Current Settings:
Place the summary here.
< Back
Next >
Cancel

Step6. Click “Finish” and restart the computer.


Giga LPR Setup
Giga LPR
Setup Complete
Setup has finished copying files to your computer.
Before you can use the program, you must restart Windows or your computer.
Yes, I want to restart my computer now.
No, I will restart my computer later.
Remove any disks from their drives, and then click Finish to complete setup.
< Back
Finish

Step7. Please follow the “Add New Printer” procedures, however please notice that “Available Ports” need to be chosen for the “Giga LPR” ; and click “Configure Port..” bottom to make sure that Printer server’s IP address is “192.168.1.254” (default value).

Limited Warranty

1-Year Warranty

Gigabyte warrants to the original consumer/purchaser that the adapter product free from defects in material and workmanship for no limited time from the original manufactory shipment date. This warranty does not cover the adapter product if it is damaged in the process of being installed or improperly used.

Gigabyte may replace or repair the adapter product with either new or reconditioned parts. Repaired or replaced adapter products will be returned to you at the same revision level as received or higher at Gigabyte's option. Gigabyte reverses the right to replace discounted adapter products with an equivalent generation adapter product.

KEEP THIS STUB FOR YOUR PURCHASING RECORD

Customer:	
Phone No:	
Address:	
Email:	
Model:	
Serial:	
Date of Purchase:	
Place of Purchase:	
From Whom:	
Distributor:	

Customer Satisfaction

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Safety, Care and Regulatory Information

Important safety instructions

Read and follow all instructions marked on the product and in the documentation before you operate your system. Retain all safety and operating instructions for future use.

- The product should be operated only from the type of power source indicated on the rating label.
- If your computer has a voltage selector switch, make sure that the switch is in the proper position for your area. The voltage selector switch is set at the factory to the correct voltage.
- The plug-socket combination must be accessible at all times because it serves as the main disconnecting device.
- All products hipped with a three-wire electrical grounding-type plug only fits into a grounding-type power outlet. This is a safety feature. The equipment grounding should be in accordance with local and national electrical codes. The equipment operates safely when it is used in accordance with its marked electrical ratings and product usage instructions
- Do not use this product near water or a heat source.
- Set up the product on a stable work surface or so as to ensure stability of the system.
- Openings in the case are provided for ventilation. Do not block or cover these openings. Make sure you provide adequate space around the system for ventilation when you set up your work area. Never insert objects of any kind into the ventilation openings.
- To avoid electrical shock, always unplug all power cables and modem cables from the wall outlets before removing covers.
- Allow the product to cool before removing covers or touching internal components.
- Use only the power cord and batteries indicated in this manual. Do not dispose of batteries in a fire. They may explode. Check with codes for possible special disposal instructions.

Precautions for Products With Modems, Telecommunications, or Local Area Network Options

Observe the following guidelines when working with options:

- Avoid using a telephone (other than a cordless type) during an electrical storm. There may be a remote risk of electric shock from lightning.
- **CAUTION** - To reduce the risk of fire, use only No. 26 AWG or larger telecommunication line cord.
- Do not plug a modem or telephone cable into the network interface controller (NIC) receptacle.
- Disconnect the modem cable before opening a product enclosure, touching or installing internal components, or touching an uninsulated modem cable or jack.
- Do not use a telephone line to report a gas leak while you are in the vicinity of the leak.
- Do not use this product near water, for example, near a bath tub, wash bowl, kitchen sink or laundry tub, in a wet basement or near a swimming pool.

Federal Communications Commission (FCC) Statement

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Properly shielded and grounded cables and connectors must be used in order to meet FCC emission limits. Neither the provider nor the manufacturer are responsible for any radio or television interference caused by using other than recommended cables and connectors or by unauthorized changes or modifications to this equipment. Unauthorized changes or modifications could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and

(2) This device must accept any interference received, including interference that may cause undesired operation.

/ for European users only /

European Community Directive Conformance Statement

This product is in conformity with the protection requirements of EC Council Low Voltage Directive (Safety) 73/23/EEC, EMC Directive 89/336/EEC on the approximation of the laws of the Member States relating to electro-magnetic compatibility.